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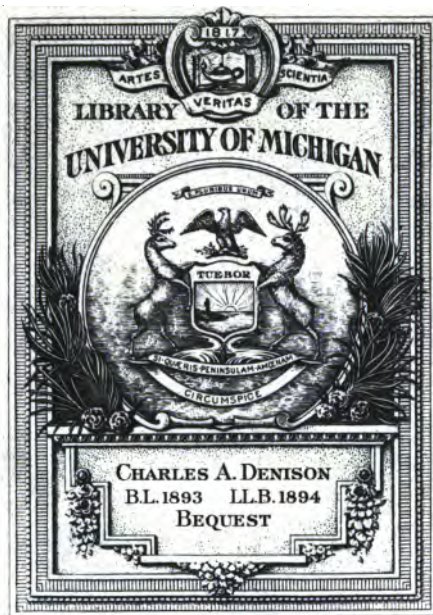
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196

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THE
PREHISTORIC
ARTS, MANUFACTURES, WORKS,
WEAPONS, ETC.,
OF THE.
ABORIGINES OF AUSTRALIA.

COMPILED AND COLLATED BY THOMAS WORSNOP,
Town Clerk, Adelaide.

South Australia:
C. E. BRISTOW, GOVERNMENT PRINTER, NORTH-TERRACE, ADELAIDE.
1897.

3-23-39 J.A.

DEDICATION.

TO THE

Honorable Sir Edwin Thomas Smith, B.C.M.G., M.L.C.,

THE FOLLOWING WORK IS RESPECTFULLY DEDICATED,

IN REMEMBRANCE OF THE

MANY TOKENS OF FRIENDSHIP I HAVE RECEIVED AT HIS HANDS,

AND ESPECIALLY SO DURING

THE YEARS OF HIS MAYORALTY OF THIS CITY ;

AND IN RECOGNITION

OF HIS LONG IDENTIFICATION WITH ALL THAT CONCERNS

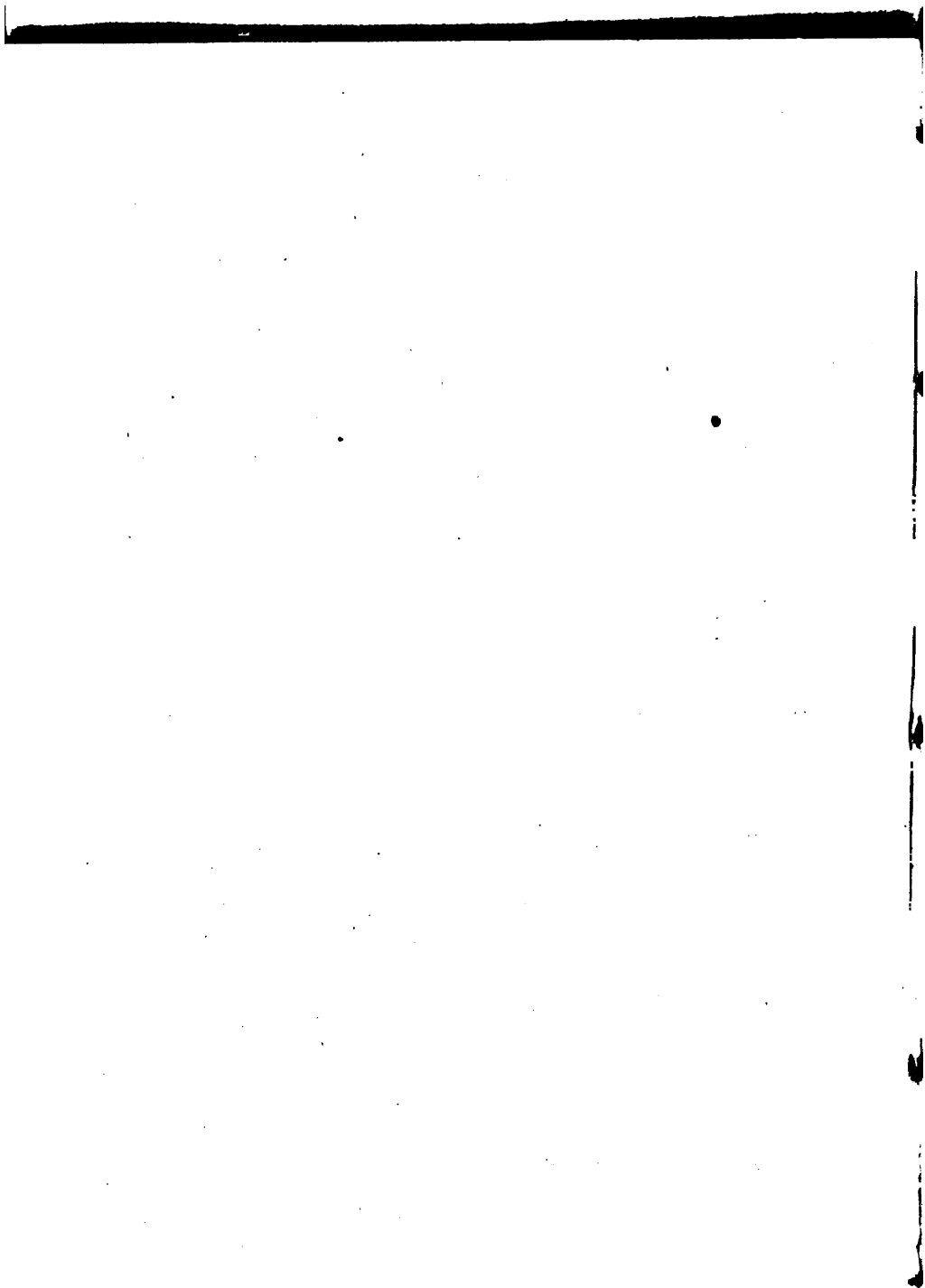
THE WELFARE AND PROGRESS—

SOCIALLY, MORALLY, AND EDUCATIONALLY—OF THE

PROVINCE OF SOUTH AUSTRALIA.

THOMAS WORSNOP, TOWN CLERK.

Barnard Street West, Adelaide, S.A., 1897.



Benjamin
Thompson
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PREFACE.

THE antiquities of prehistoric man in Europe, Asia, Africa, and America have been fully investigated and carefully described by various learned men. With respect to Australia, however, it has been considered until lately that she has no antiquities, and consequently little attempt has hitherto been made to collate the discoveries that from time to time have been made of the prehistoric arts, manufactures, and remains of her various aboriginal tribes.

I trust therefore that in this effort to rescue from oblivion the primeval antiquities of Australia some interest may be awakened in the public mind in regard to them. This may have the result of inducing others more minutely and systematically to examine and describe the vast store of pictographic records still existing in this continent, embracing so much yet to be deciphered and understood; thus let me hope that these native productions may be permanently recorded and explained.

In collecting these pictorial and other monuments of Australian art and work I had in view the extended information thus made available not only to the archæologist and the ethnologist, but to the general reader also. I have endeavored to show that Australia is not barren in pictography in order to excite a more general interest in its preservation, and by comparison with the works of other nations to secure for our aborigines a due appreciation of their undoubted artistic nature. I do not hesitate to affirm that many of these artistic productions, which without question are genuine emanations of the

VI.

Australian aboriginal mind, will bear very favorable comparison with those of prehistoric man in any other part of the world; and I am well satisfied that if the inquiring reader of these pages will compare the illustrations now given with those in the works mentioned in the foot note,* and in many other works of a similar character, he will fully indorse the statement I have now made.

Whilst engaged on this work my mind has not been free from those anxieties inseparable from the official position I have had the honor to hold for a quarter of a century. If therefore any errors have crept in they will, I trust, be attributed to the engrossing effect of the multifarious duties attached to my office rather than to any disregard of the importance of the various subjects that have been brought under notice.

When I commenced to gather the information herein given I placed myself in communication with the various colonial Governments in Australia, and also with gentlemen who have had frequent and favorable opportunities of witnessing the handiwork of the aborigines and of seeing and sketching the various pictographs now brought under illustration. From all these sources I have received much valuable assistance, and very courteously rendered.

I have also at all times received much valued help from Sir Geo. Grey, A. Panton, Esq. (Police Magistrate, Melbourne), J. J. Shillinglaw, Esq. (Melbourne), from Hon. Sir E. T. Smith, H. Y. L. Brown, Esq. (Government Geologist), R. E. Johns (Police Magistrate, Hamilton, Victoria), — Griffin, Esq. (Architect, Sydney), the Hon. Sir John Forrest, K.C.M.G. (West Australia), A. W. Howitt, Esq., F.G.S. (Department of Mines, Victoria), Ernest Giles, Esq. (Melbourne), W. A. Cawthorne, Esq.

* "Primeval Antiquities of Denmark," by Worsaae; "Discovery of the Tomb of Ollamb and Fodlha," by Conwell; Schliemann's "Tiryns: the Historic Palace of the Kings of Tiryns"; Lubbock's "Origin of Civilisation" and his "Prehistoric Times"; Schoolcraft's "Indian Tribes of America"; Evans' "Stone Implements, Weapons, &c., of Great Britain."

VII.

(Adelaide), late Colonel Egerton-Warburton, S. Gason, Esq. (Beltana), late Gavin Scoular, Esq. (Smithfield), A. J. Giles, Esq. (Surveyor, Adelaide), C. Winnecke, Esq. (Surveyor, Adelaide), R. R. Knuckey, Esq., J. W. O'Donnell, Esq. (North Australia), Thos. Gill, Esq. (Glen Osmond), Tom Brown, Esq. (Nullarbor Station, South Australia), E. J. Clark, Esq. (Sydney), Dr. Connor (Sydney); also to A. Zeitz, Esq. (Assistant Curator, National Museum, Adelaide), A. Wright, Esq., and Guy Boothby, Esq., who have willingly spent much of their time on my behalf in writing out notes and in sketching. And I have also to thank G. T. Pank, Esq., for many of the drawings prepared for the lithographer's use. In the body of the work itself will be found references to many valuable books on the natives of Australia, of which I have largely availed myself in this compilation.

I deeply regret my own carelessness in allowing many valuable opportunities to slip which occurred during my early life in this province of recording, and daily, the numerous religious rites and grand festivals I have witnessed, together with occasional discoveries of cave paintings and of carvings, both on rock and on wood. Nevertheless, I trust in the things now recorded sufficient interest will be excited as to press upon the public attention the necessity of attempting in our own time and day the careful collection of copies of every artistic work of the Australian aborigine which may at any time come under personal observation. Failing this, like the tribes themselves, these pictorial records may soon disappear and be no more known.

THOMAS WORSNOP.

Barnard Street West.

CONTENTS.

	PAGE.
CHAPTER I.—INTRODUCTION	I
Aborigines—Foreign visitors and influence—No religion—Superstitions—Roving habits—Huts—General characteristics—Tattooing of the Young—Ornaments—Clothing—Weapons—Funeral rites—Drawings—Pigments employed—Artistic productions—Cave paintings—Phallic drawings—Serpent worship—Sacred ceremonies—The Bora Initiation to manhood—Dances—The corroboree—System of marriage—Laws relating to food—Tribal totems—Perceptive faculties—Native customs: their affinity to those in Asia and Africa—Cannibalism—Belief in witchcraft and sorcery—Message sticks.	
CHAPTER II.—DRAWINGS, &C.	14
Manufacture of the pigments—Artistic skill—Drawings inferior near coast to those far inland—Art paintings as seen on the human body, on weapons, rocks, and caves—Captain M. Flinders—Paintings on Chasm Island—Captain King and Clack's Island—Sir George Grey's discoveries—Figure of man in red garment—Clothed figure; apparently Oriental characters on its head-dress—Sumatran and Phœnician alphabet—Chaldeo-Phœnician characters—Harrison's theory that Oceania probably peopled by Phœnicians from Persian Gulf—Art gallery at McLeod river—Man carrying kangaroo—Tree paintings, Darwin and Blackmore rivers—Rock paintings near Alice Springs—Cave paintings at Mount Skinner—Paintings of hearts—Man slain by tomahawk—Paintings of fish at Victoria river—Tree carvings at Port Macquarie—Cave paintings at Alice Springs and Ooraminna—The red hand—Paintings of hands at Kangaroo Point, Sydney—Carvings of hands in cave—Cave paintings at Macdonnell Ranges and Natal Downs—Stones for grinding ochre—Painting brushes used—Bark drawings, Lake Tyrell—Native drawings, Lake Albert—Bark drawings, Field Island—Drawings by native in prison—Rock paintings at Nardoo Creek.	
CHAPTER III.—SCULPTURE AND CARVINGS	40
Stockdale's record in 1788—Sculptured figures at Botany Bay—Governor Phillip's excursions—Figures cut on stones—Figures of fish on rocks at Middle Harbor—Carvings at Thornton's Hill, Sydney Common, Berry's Bay—Sculpture on Glenelg river—Leichardt—Tree carving—Captain Stokes' discoveries, Depuch Island—Stone carvings of emus' feet on Willipa run—Discoveries by Forrest, Colonel Egerton-Warburton, and A. J. Giles—Curious hieroglyphics—Captain Flinders' discoveries at Pellew's Island—Carved walking stick—Message sticks and their symbols.	

CHAPTER IV.—CLOTHING	PAGE. 50
Natives formerly unclothed—Manufacture of rugs, cloaks, girdles of hair—Seaweed dress—Cloak and rugs of skin, how made—Mantles of green leaves—Aprons of feathers and of skin—Native death shoes—Native head-dresses—Cooper's Creek—Grass head-dress — Bone awls — Pearlshell aprons — Pearl fishery.	
CHAPTER V.—NATIVE TOMBS	57
Tombs on the Darling—Graves within parterres—Milmeridien cemetery—Grave on Walker river—Burial in hollow trees—Burial mounds with semicircular seats—Group of tombs—Inhabited tomb—Tombs with huts over them—Tomb board—White clay widow's head-dress—Drying a corpse—Burial mound at Lake Alexandrina—Graves at Wizard Peak and Victoria river—Aboriginal funeral described—Bones exhumed—Burials by the Goulburn blacks—Mound at Tarn Creek—A circle of spears—Dissection of the dead—Native inquest—Burning the dead—Body on platform—Burials at Shepparton and Numurkah—Cremation in New South Wales—Graves at Maria Island—Native bier at Port Essington—Carved tree epitaphs.	
CHAPTER VI.—NATIVE DWELLINGS AND SLEEPING PLACES	73
Huts at Mullet Bay, Careening Bay, the Gwydir river, and Hanover Bay—Native huts at Mount Arapiles—Bark beds—Huts plastered over at Albert river and Cooper's Creek—Superior huts at Herbert river—South Australian huts—Huts in Gulf of Carpentaria, on Wellesley's Island, and Depuch Island—Stone circles in Victoria—Huts in Arnheim Land, Ayers Range, Elsey Creek, and Wreck Creek, Queensland—Sleeping places, Gilbert river—Bark beds near Glenelg river—Mill stones, Hanover Bay and Munster Water—Nardoo seed ground and made into paste—Native ovens—Cooking lizards—Sunken ovens—Shell heaps—Cooking the kangaroo—Ovens in Hamilton—Cooking tadpoles, fish, and moths—Eating red earth.	
CHAPTER VII.—DOMESTIC UTENSILS	85
Bags and native reticules near Mount Arapiles—Water bags—Netted bags—Bags of cabbage palm, of reed and bark—Baskets of bark, cabbage palm, osiers, fibre, and green rushes—Water vessels—Coolimans—Drinking vessels—Bark water vessel—Skin water bag—Wooden water vessel—Honey basket—Charm bag—Pitchuri bag—Bark water carrier—Fishing nets of fibre, rushes, dry grass, and bark—Fishing at Rapid Bay, at Encounter Bay, and at Yorke Peninsula—Osier nets—Nets of Currajong fibre—Game and bird nets—Mode of catching waterfowl—Fishing spears—Turtle fishing—Tooth-pointed fishing spears—Fish hooks—Crayfishing.	

XI.

	PAGE.
CHAPTER VIII.—ROAD-MAKING, QUARRYING, WEIRS, WELL-SINKING, TOOLS, &c.	97
Paths at Cooper's Creek, at Pondoothy, near Mount Russell— Beaten paths in Western Australia—Quarries, Mount Douglas Station, South Australia—Stones removed from this quarry— Number of millstones—Quarries for spear-heads and for hatchets in Victoria, New South Wales, Western Australia, Mount William, Wartook, and Ooraminna—Ochre quarries—Weirs at Oyster Harbor—Weir of boughs on the Darling—Stone dams in the Barwon and Brewarrina—Native dam of clay seen by Ernest Giles—Native dam at Ooldabinna and Scott's Creek—Weirs of brushwood and poles—Great Weir in the Upper Darling—Well found by Captain Sturt—Wells near Eyre's Creek, Kulkadoon, Vale of Tempe, Mount Quinn, Krichauff Creek, Mount Ayers, and in the desert of North- West Victoria—Channels with dams, Lake Condah—Well at Arcoona—Curious stone wall—Wooden shovels on Bogan river, Lake Lonsdale, and Western Australia—Scoops used on the Rivers Darling and Murray—Stone axes—Stone knives— Chisels of flint, quartz, of teeth, and of the jaw bone of opossum—Stone chisels—Stone spear-heads—Bird snares— Decoy for birds—Wallaby and kangaroo nets—Spearing the emu.	
CHAPTER IX.—NAVIGATION	118
Rude boats used by natives, how made—Native rafts of different forms made of palm tree poles, of mangrove stems, and of bundles of wood—Canoes of bark, the ends sewn together— Bark canoe, North-West Coast—Mode of removing bark to form a canoe—Outrigger canoes—Fire carried in canoes— Bark canoes of New South Wales.	
CHAPTER X.—OFFENSIVE WEAPONS	123
Weapons incorrectly described—Tribes differ in manufacture— Bows and arrows, Queensland—Spears used in war, how barbed—Manner of throwing the spear—The wommerah and its ornamentations—Hanover Bay spears—Beautiful spear- heads—Enormously long spears—Hardwood dagger—War spear of Central Australia—Spear-heads of flint, of greenstone —Tools used in making spears—Stone and wooden barbs— Double-barbed spears—Kileys, or boomerangs—Boomerangs of two kinds, how thrown, and at considerable distance— Qualities of the boomerang—The thrower of the boomerang —West Australian kileys—The war boomerang of Victoria, at Ovens river, River Murray, and New South Wales—Probable origin of the boomerang—Boomerang propeller described by Sir T. Mitchell, and Colonel Mundy on boomerangs— Boomerangs of Port Augusta tribe—The nullah-nullah—The waddy, of various forms—Swords varying in form and size and weight—Daggers, single and double pointed—Battle axes— Beautifully-carved club from Lake Hope.	

XII.

	PAGE.
CHAPTER XI.—DEFENSIVE WEAPONS—SHIELDS; SUR- GERY	137
Shields of two kinds—Ornamentation—Various sizes and forms— Carved shields—Painted lines on shields—Shields of wood and bark—Shields used in Queensland, Lower Murray, and Gippsland, and on South Coast—Carved shield by native at Lake Alexandrina—Professors of the healing art—Vapor baths—Cure of sandy blight, of cuts, stings, and snake bite— Headache cure—Fractured bones—Fire applied to wound— Extraction of barbed spear from body—Amputation of limbs —Setting broken arm—Burying a limb—Dislocation of ankle —Faith in their doctor—Treatment of swellings, of burns, and dysentery—Native lancet.	
CHAPTER XII.—CEREMONIAL; DANCES; CORROBBOREE	146
Ceremonials practised—Feasting and dancing—Rite of manhood —Kangaroo imitated in native dance—Striking out front teeth—Broiled fish applied to gum—At initiation, noise during ceremony—War dance—The sacred Bullroarer—The Bora ceremony—Various native dances: Pedku, Kuri, Parnkalla, Palki—Dance of Rufus natives—The corroboree—A dramatic recital, illustrating the hunting of animals and chase of the hunters—Alice Springs natives at a corroboree.	
CHAPTER XIII.—MUSICAL INSTRUMENTS	155
Chant for the dead—Corroboree sticks used—Native flutes— Northern Territory trumpet—The ebero, or trumpet—Personal adornment—Flowers not utilised—Feathers used extensively Feather head-dress, North-West Continent—Ornaments of wild dogs' tails and ears of native bear—Necklaces of shell, teeth, reed—Nose ornaments—Armlets, bracelets, girdles of skin, feathers, and dogskin—Rugs of opossum hair—Pearl- shell ornaments—Star ornaments of teeth—Ornamental hair pins—Wooden belts—The chignon—Imposing head-dresses.	
CHAPTER XIV.—TATTOOING	163
Communications between different tribes by marks on trees— Tattooing on bodies may be read—Tattooing, how it is done —Examples of tattooing—Incantation whilst tattooing.	
CHAPTER XV.—GAMES, MYTHS, &c.	165
Amusing games: of ball, granite ball, hide and seek—The Weit- Weit, its dangers when played—Wrestling—The Perboregan —Games of native women: cat's cradle, quivering of the thighs—Youths digging out a wombat—Sham fights— Mythical animals: the Bunyip, the aboriginal Myndie, the Kuperree—Carnivorous animal: the Diprotodon—Mythical stories—Collation of mythical stories—Teyls, or talismanic stones—Talc forbidden to females.	

LIST OF ILLUSTRATIONS.

	FACING PAGE
1. Diagram Illustrating Marriage	8
2. Idol or Image	13
3. Painting on Rock—Male	19
4. Clothed Figure—Painting	20
5. Rejang and Sumatran and Phœnician Alphabet	24
6. Sumatran and Phœnician Characters	25
7. Man Carrying Kangaroo—Cave Drawing	26
8. Man Painted on Tree, Darwin River, Fig. 1; Kangaroo, &c., Painted on Tree, Fig. 2	26
9. Painting on Tree, Blackmore River, Fig. 1; Rock Paintings, Lizzie Creek, Fig. 2	26
10. Singular Rock Paintings, Ledan's Hill.	27
11. Paintings near Mount Olga	29
12. Rock Paintings near Oulina Woolshed, Fig. 1; Rock Paintings, Finke River, Fig. 2	29
13. Native Decorations, Ooraminna, Fig. 1; Hands Painted on Rocks, Sydney Heads, Fig. 2	31
14. Hands on Rock, Hunter River	33
15. Native Drawings, Wollombi	33
16. Native Drawings on Bark, Lake Tyrell	34
17. Native Drawings—Hunting Party	36
18. Native Drawings on Bark—Turtles, Fish, &c.	36
19. Drawings by Native Prisoner in Palmerston Gaol	37
20. Drawings by Native Prisoner in Palmerston Gaol	37
21. Rock Carvings, Sydney	41
22. Rock Carvings, Depuch Island	44
23. Rock Carvings, Sullivan's Creek	45
24. Singular Monument, Sir E. Pellew's Island	46
25. Native Carving—Walking Stick	46
26. Message Sticks, Queensland, Figs. 1 to 3	49
27. Dress of Green Leaves, Bogan River	52
28. Native Ornaments	52
29. Native Implements	55
30. Tombs on the Darling River	57
31. Burial Ground, Milmeridien	57
32. Tombs in New South Wales with Seats	60
33. Tomb Board, Fig. 1; Native Widow in Mourning, Fig. 2	62

XIV.

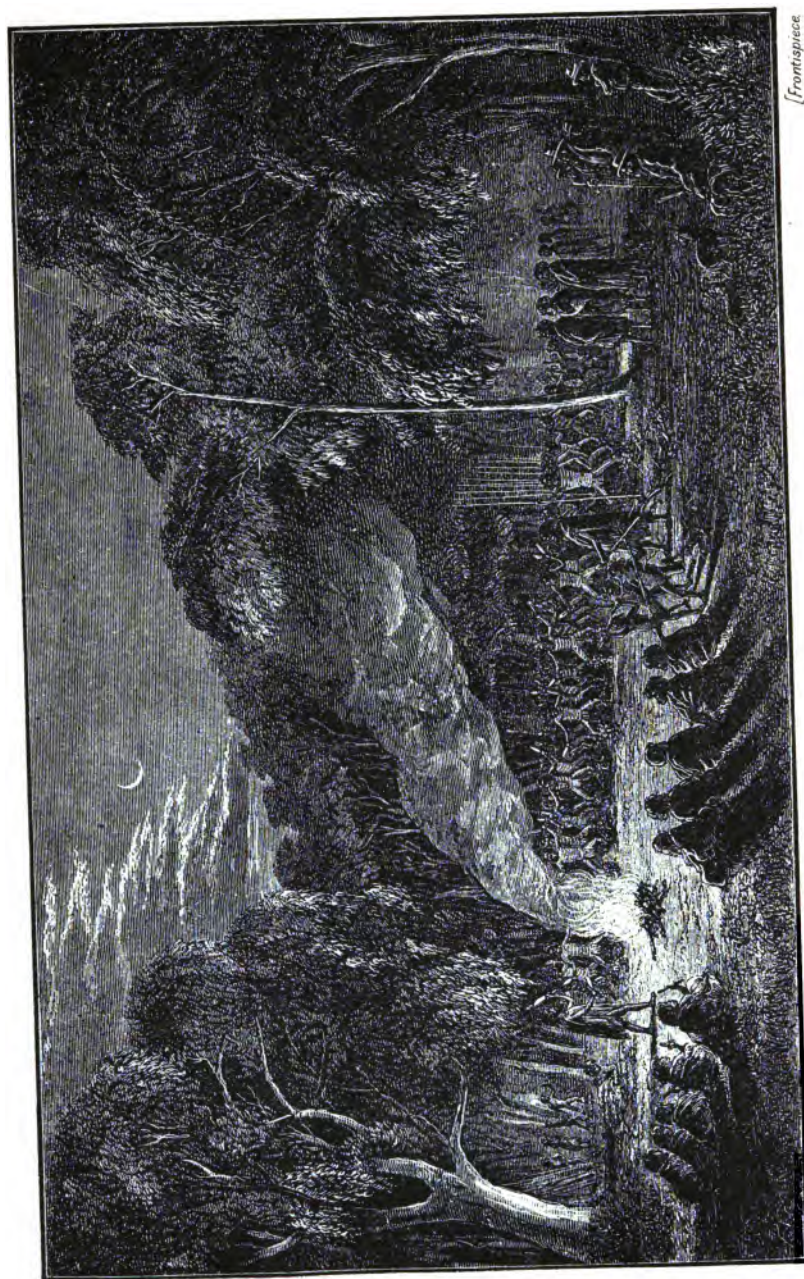
	FACING PAGE
34. Burial on Platform	66
35. Native Inquest	69
36. Drying the Dead	69
37. Tombs on Maria Island	70
38. Carved Trees	72
39. Native Huts, Wreck Creek, Queensland	80
40. Grinding Stones	80
41. Native Works of Industry	86
42. Water Vessels	88
43. Water Vessels, Figs. 1 and 2; Honey Basket, Fig. 3	88
44. Native Bags and Bark Water Carrier	89
45. Netted Bag	92
46. Netted Bag	92
47. Fishing Spears, Fig. 1; Spears, Various, Fig. 2; Turtle Peg and Staff, Fig. 3	94
48. Fishing from Canoes, Fig. 1; Native Fish-hooks, Fig. 2	96
49. Natives Treading for Crayfish	96
50. Native Weir	96
51. Native Tomahawks	109
52. Stone Hatchet, Fig. 1; Tomahawk Head, Fig. 2	110
53. Stone Knife, Fig. 1; Quartzite Knife, Fig. 2; Chisel, Fig. 3	110
54. Mulligan River Knife	111
55. Sheath for Native Knife	112
56. Native Knives, Figs. 1 and 2; Native Gouge, Fig. 3; Native Awl, Fig. 4	113
57. Spear-heads	114
58. Snare for Birds, Fig. 1; Wand for Snaring Birds, Fig. 2; Wallaby Net, Fig. 3	115
59. Native Raft, Fig. 1; Tree and Bark Canoe, Fig. 2	119
60. Manner of Throwing Spears, Fig. 1; Wommerah, Fig. 2	124
61. Spear-heads and Hatchet	126
62. Various Forms of Spears	126
63. Stone and Wooden Spear-heads	127
64. Boomerangs.. .. .	129
65. Boomerangs of Various Kinds	130
66. Nullah-Nullah, Fig. 1; Native Club, Fig. 2	134
67. Native Clubs, Fig. 1; Native Swords, Fig. 2; Stick Daggers, Fig. 3	135
68. Battle Axe and Spear and Native Club, Fig. 1; Shield, Fig. 2	136
69. Wooden Shields, Fig. 1; Bark Shields, Fig. 2	138
70. Wooden and Bark Shields, Figs. 1 to 5	139
71. Native Surgery—Broken Arm, Fig. 1; Lancet, Fig. 2	145

	FACING PAGE
72. Ceremonial Dance	148
73. War Dance	148
74. Sacred Bullroarer	148
75. Pedku and Kuri Dance, &c.	149
76. Hollow Wood Trumpets, Fig. 1; Head-dress of Feathers, Fig. 2	155
77. Aprons of Feathers and of Skin, Fig. 1; Kangaroo Teeth and Shell Ornaments, Fig. 2; Head-band of Teeth, Fig. 3; Hair Pins, Fig. 4; Wooden Belts, Fig. 5	159
78. Tattooed Native Woman, Sydney, New South Wales ..	163
79. Tattooed Woman, New South Wales	163
80. Tattooed Woman, Bogan River	163
81. Various Tattoo Marks	163
82. Weit-Weit, Fig. 1; Perboregan, Fig. 2; Kurruk's Bunyip, Fig. 3	165
83. River Murray Bunyip, Fig. 1; Aboriginal Myndie, Fig. 2 ..	167
84. Kuperree	170
85. Teyls, or Talismanic Stones	171









[Frontispiece]

SURVEYOR GENERAL'S OFFICE, ADELAIDE. A. VAUGHAN, PHOTO LITHOGRAPHER.

THE PREHISTORIC ARTS, WORKS, ETC., OF THE ABORIGINES OF AUSTRALIA.

CHAPTER I.

MANY works have been written describing in detail the physical appearances of the island formerly known as "The Great South Land," or "Java Major," subsequently as "New Holland," and at the present time as "Australia." Its coasts, bays, harbors, rivers, mountains, and plains have been fully and minutely described by numerous writers and explorers, but comparatively little attention has been given (save an incidental allusion here and there) to the artistic works of the natives themselves, as evidenced in paintings and carvings, whether on rocks or weapons. I purpose, therefore, collating in the following pages such information as will, I think, prove of interest to the reader, derived from these scattered notices of the arts and works of the Australian aborigines, and indicating as far as possible the general characteristics of these works, and the locality where they are to be found.

There can be no doubt that numerous visits were paid to the northern, north-western, and north-eastern coasts of Australia, both by the Chinese, Japanese, and Hindoos, as well as by the peoples of the Malay Archipelago. These last-mentioned have indeed for remote ages arrived with the north-west monsoon, returning to their island homes at the end of the season with the south-eastern monsoon, and it is only reasonable to suppose that these repeated visits produced upon the minds of the Australian natives a certain influence and curiosity, impelling them from time to time to attempt the delineation of the visitors themselves who thus appeared and disappeared with the change of the seasons. The influence here spoken of had, however, little depth or lasting duration, else the natives, however crude their notions, would surely have made some efforts in the direction of an alliance between other and weaker neighbors. But no one tribe appears to have been subject to another, and slavery, as such, has not been known to exist amongst them, except the slavery which each tribe imposed upon its own women.

The aboriginal has neither god nor religion in relation either to morality or the observance of the duties due by one member of a tribe towards another; yet he is intensely superstitious, and has a firm and unshaken belief in evil powers and the agency of sorcery. His sorcerer indeed attributes to evil spirits every mishap that befalls him. If a man dies or sustains some serious hurt it is at once concluded that some member of a neighboring tribe has caused either the death or the accident, and the result is either a tribal war or the massacre of their unoffending neighbors as a sequel. The aid of the sorcerer is also called in to use the power he claims to hold of protecting the tribe from the evil effects of thunder, lightning, wind, or rain. He stands out in the open air, tossing his arms, making violent gesticulations, shaking his rugs or mats during the storm until it has passed away, when he claims to have subdued the hurtful or evil calamities that would otherwise have ensued.

The native has no fixed or permanent abode; he roams from place to place wherever food, in the form of animals, fish, roots, and fruit, is plentiful. His wanderings are bound by no law, save such as is settled in the unwritten edicts regulating tribal boundaries. He never cultivates the soil, and in the largest portion of the continent his shelter by night is of the most primitive character; a few boughs from the neighboring trees or shrubs constructed one day are forsaken the next, except, as will be shown, in isolated places, where the huts are of a superior description, built of logs of wood or other available material, in shape like an old-fashioned straw beehive, and, with the exception of a low entrance, entirely closed to the wind and weather.

My experience enables me to speak in the most favorable terms of the aborigines. The quickness of apprehension of those in the interior is very extraordinary, and their shrewdness shines even through the medium of imperfect language, rendering them in general very agreeable companions. As a rule they are highly intelligent, with a wonderful power of mimicry, learning with facility the words of our language, and readily adopting our habits. Their constant feuds, however, with contiguous tribes makes them restless and suspicious, which accounts partly for their migratory habits.

At their initiation into manhood, the young men are tattooed on the chest, shoulders, arms, or back, or thighs. The cicatrix thus raised is a distinguishing mark of the tribe, and may have some further but as yet unknown meaning. The septum of the nose in some tribes is perforated, and a bone, feather, piece of bamboo or wood is worn through it; this applies only to the younger men of the tribe, as on reaching middle age these and all other objects of

ornamentation are thrown aside. Their clothing is of various materials made from the hair or skins of animals, seaweed, or leaves of trees; and, from the nature of their surroundings, is not very abundant. They spin thread from the fur of the opossum, from human hair, and from various vegetable fibres, and adorn their heads with feathers, rats' and dogs' tails and anything their fancy prompts. Their weapons are few and curious and of a most primitive type. The spear is of two or three kinds, one of these often used in war having a head with a sharp serrated flint or piece of opal or bone. The spears are, excepting the longest kinds, all hurled with the aid of a throwing stick. The boomerang, or kiley, is of two kinds; it is made of wood, and is used both in hunting and in their tribal fights; it is in the form of a curve, and varies in length from 18 in. to 3 ft. or more. Clubs and shields, small and large, are in great variety. Stone hatchets or tomahawks, as well as knives or chisels, are employed in cutting, trimming, or carving their spears, boomerangs, clubs, and shields, and for stripping bark from the gumtrees, or in cutting pieces out of the bark of growing trees to enable the natives to easily ascend the tallest gums in search of opossums, birds, or bees. Water vessels and canoes are also formed by the aid of these primitive tools.

In his native state the aboriginal has an erect and graceful carriage; his movements are light and easy, he exhibits great endurance, and he recovers quickly from injuries which would certainly prove fatal to a European. The magician, who is also the doctor, uses almost the same processes in respect to curing diseases as in overcoming natural phenomena, save that he is less noisy and demonstrative. One remedy is the occasional use of friction, sometimes with green twigs previously warmed at the fire, and sucking the wound (if any), making short puffs at intervals as if to blow away the cause of pain. In the southern part of the continent the native doctor had reached still greater attainments, as he could set a broken limb with success and heal a wound by applications of poultices either of leaves or earth.

Their funeral solemnities are accompanied by loud lamentations, but the mode of sepulture varies in different parts of the continent. Amongst some tribes the dead body is smoked over their camp fires, and carried by the widow or mother from place to place, and again set up over the fire until the flesh has entirely left the bones, when they are at once buried; in other tribes the body is laid on an elevated platform, and there left to decay; some, again, wrap the body in skins and coverings, and surround it with sticks, placing the whole in the branches or in the hollow of a tree; while others bury the body in shallow graves, leaving a depression

to mark the spot, and, in some cases, raising mounds over the remains, with low seats, formed by the thrown up soil, around them.* In other instances ornamental grounds mark the site of a cemetery, in which the greatest care is taken to preserve the beauty of the scene and the circuitous paths by which it is approached.

The natives make drawings on bark, wood, and rock, and there are tribal family devices in painting and ornamenting their persons for war and corroboree. In some tribes a peculiar device is to be seen on the bodies of engaged bachelors; and amongst all the natives there are varieties of painting on the face and bodies as a token of mourning for the dead. Special and peculiar paintings are made on the bodies for feasting or dancing, and numerous devices and designs are employed in the decoration of opossum rugs, shields, and boomerangs, as well as of all other weapons; and interwoven in the material of their water and other baskets are designs of a distinctive tribal character.

The pigments used are red, yellow, blue, black, and white; they are nearly all composed of ochres, clay, or charcoal mixed with grease. Some of the tribes obtain a brighter red pigment from the roots of the little sundew plant, in which there is a minute red pustule between the brown outer skin and the white inner bulb. This red pustule they scrape off and mix with fat for coloring the fillets of opossum hair-twine, which they bind round their heads. The blue is probably obtained from blue carbonate of copper, or from the seed vessels of a plant very common all over the continent, which, on being broken, yield a few drops of a brilliant blue liquid. The yellow is obtained from ochre, and the white from the pipeclay, which abounds everywhere.

The artistic productions of the natives, while they are both numerous and interesting, have been hitherto little studied, and even then the examination has been of a superficial character. A thorough investigation of these art labors of the aborigines—vestiges of age-long times (and many have yet to be discovered)—will, I feel sure, reveal much of that aboriginal period now wrapped in the silent darkness of past ages. The contemplative as well as the curious mind would find the employment both pleasant and profitable in prosecuting this most interesting subject of inquiry, and in discovering further “testimony from the rocks.”

The paintings in caves and sheltering rocks give evidence of great intelligence. At the same time it must be remembered that there is no data whatever to connect these works with the present generation. In many instances these paintings are in good preservation, as the dryness of the natural walls on which they are

* Rev. G. Taplin.

executed and the comparative absence of atmospheric moisture tend to keep them in good preservation for an indefinite period. In other cases, however, the pigments have so impregnated the rocks on which the paintings have been made as to render it necessary to cut away the surrounding stone; and, furthermore, some paintings have, through the ravages of time, become partly obliterated or otherwise so injured that the natives, from one generation to another, have felt bound, as far as they possibly could, to preserve them by renewing the original pigments, and many have thus become altered by renewed applications of paint. The renovating artist, therefore, to whom their original signification was unknown, was not always careful or particular in keeping to the exact design or lines of the original painting, and in this manner distortions and alterations from the primary design insensibly crept in. As monuments of the art labors of the natives these designs are unique. Nevertheless, these illustrations by no means exhibit a wide knowledge nor much refinement beyond the simple ideas of life possessed by them, although no doubt they testify to faculties of an essentially artistic character. Human as well as animal forms are so well imitated, and actions so thoroughly expressed, that there is no difficulty in recognising the object which the artist desired to represent, notwithstanding he had only the rudest implements for executing his work.

It has been often stated in works on the aborigines of this continent that none of their paintings or drawings exhibit any types of what are now considered indecent delineations. This is, however, a great mistake, and has arisen from the ignorance of the writers on the subject. Phallic marks abound over the whole continent, and many of them are of so exaggerated a form that they carry with them their own interpretation of the *Linga* and *Yoni* they symbolise.

Such figures are more pronounced and more frequently found on the north-western coast and on the seaboard of the Gulf of Carpentaria. Representations of the phallus are frequently found depicted on the rocks in various parts of Australia, but whether there ever was any existing phallic worship no known records will determine, although its existence is dimly perceptible in the delineations referred to.

The human mind is identical in all countries. In many minds the same ideas are suggested by the same objects, and practices are frequently evolved independently among a number of peoples. In the early ages the operations of nature made a strong impression on the minds of men, and phallicism became in consequence the general exponent of creative power.

More especially is this class of drawings to be found in the granite country, lat. $16^{\circ} 38'$, long. $128^{\circ} 10'$, and on the sandstone cliffs on Parry's Creek, about lat. $15^{\circ} 40'$, long. $128^{\circ} 16'$.^{*} Similar drawings are to be found on the east side of the Limmen Bight river, near the "Four Archers," some twenty miles from the sea. These hills are about 100ft. high at this place, are of granite formation, and there are paintings on each of them; the colors used are blue and yellow, and the whole of them are of a phallic character.[†] At the Granite Crossing on the Granite Creek, between Pine Creek and Yam Creek, about 100 miles south of Southport, is a colored painting on a granite rock of a woman giving birth to a numerous progeny of kangaroos, representing the productive principle in nature like the Assyrian goddess Mylitta, the Queen of Fertility.

The existence of serpent worship in former times is very pronounced all over the country by delineations of snakes on the rocks. At the great peace festival the natives decorate their bodies with outline representations of emus, fish, trees, birds, and snakes; this is done "that there may be a great harvest of snakes in the coming season." The women of the tribe are not allowed to attend this sacred ceremony.[‡] That traces of serpent worship exist at this day amongst the aborigines is, in my opinion, undoubted, and I think I am justified in assuming that the universal representation of the serpent, both on rocks, trees, and human bodies in Australia, are indisputable evidences of its worship as one of the gods of its ancient Pantheon. Wilson, in his "Conquest of Mexico," in a note on page 182, quotes Calmet, vol. 5 of Coins of Egypt, and says "The Serpent was an Egyptian as well as a Phœnician emblem. It was the representative of Plenty. The Agatha Daimon." In speaking of serpent worship, Curr, in his work, "The Australian Race," mentions that about twenty miles below Euston, on the River Murray, but on the opposite side of the river to that township, there is a mound about 100ft. long made to resemble a snake. The blacks have a tradition that it was made by their forefathers to charm away a great sickness which raged in those parts. The association between the reptile and its power to give "a harvest of snakes" among the Dieyerie tribe, near Lake Eyre, is strikingly illustrative of the idea (latent it may be, but nevertheless held by the tribe as an actual article of faith) that the men by taking part in this sacred dance are securing for themselves and their families the powerful and paternal care of a god or spirit in order to provide them with food for the future.

* O'Donnell's letters.

† R. Knuckey's letters.

‡ Gason, Dieyerie Tribe.

There are several dances, and many modifications of each, in one and the same tribe, and distinctive dances amongst the tribes throughout, but all bearing unmistakable evidence of a common origin. Many of these are weird and singular, being accompanied by a variety of savage gestures. There is also a performance known as the "corrobboree," which by some is believed to be a dance or a semi-religious ceremony, but it really is a sort of theatrical performance in which are recited many of the sayings or doings of neighboring tribes or of the white men with whom they have been brought into contact. It is not improbable that the origin of the Australian race could be traced through their sacred dances, songs, and ceremonies, many of which are held or sung in the secret recesses of the forest, where none but those initiated into the ceremonies are permitted to take part or even to witness. They are numerous and important. The one known as the "Bora" is universal. It is for the purpose of initiating young men into all the mysteries of art, war, and manhood. It is a very dreaded ceremony, because the novice is about to be instructed in the mysteries of the tribe, the rites of which are encompassed with a solemn, because unknown, awe. He has to undergo a terrible formulary for days, nay, even weeks, which he must bear with unwavering fortitude, together with the lesser pains of hunger and sleeplessness, intended as a test of his endurance and aptitude to receive the special secrets of his tribe prior to his endowment with the privileges of manhood and of its subsequent duties and responsibilities. These ceremonies implant within the minds of the young men an unquestioning "feeling of obedience to the old men of the tribe and to the moral code of which they are the depositories, and furthermore to ensure that, before the youth is permitted to take his place in the community, join in the councils, and marry, he shall be possessed of those qualifications which will enable him to act for the common welfare, and not only support himself and a wife and family, but also to contribute a fair share to the general stock of food, to which his relatives are entitled in common with himself."*

These rites always concluded with a grand dance of a peculiar character, conducted with much more solemnity than many of their ordinary festivities.

The system of marriage amongst the natives is of a peculiar and elaborate character, evidencing the survival of laws from a high state of civilization which the progenitors of the aborigines enjoyed in some other land. The natives are divided into certain great families, all the members of which bear in common the second or

* The Jeraell or initiation ceremonies of the Kurnai tribe.

family name. The several members of these families again have each a local name, understood only in the district which they inhabit. "The family names are perpetuated and spread through the country by the operation of two remarkable laws:—1st. That children of either sex always take the family name of their mother. 2nd. That a man cannot marry a woman of his own family name." * †

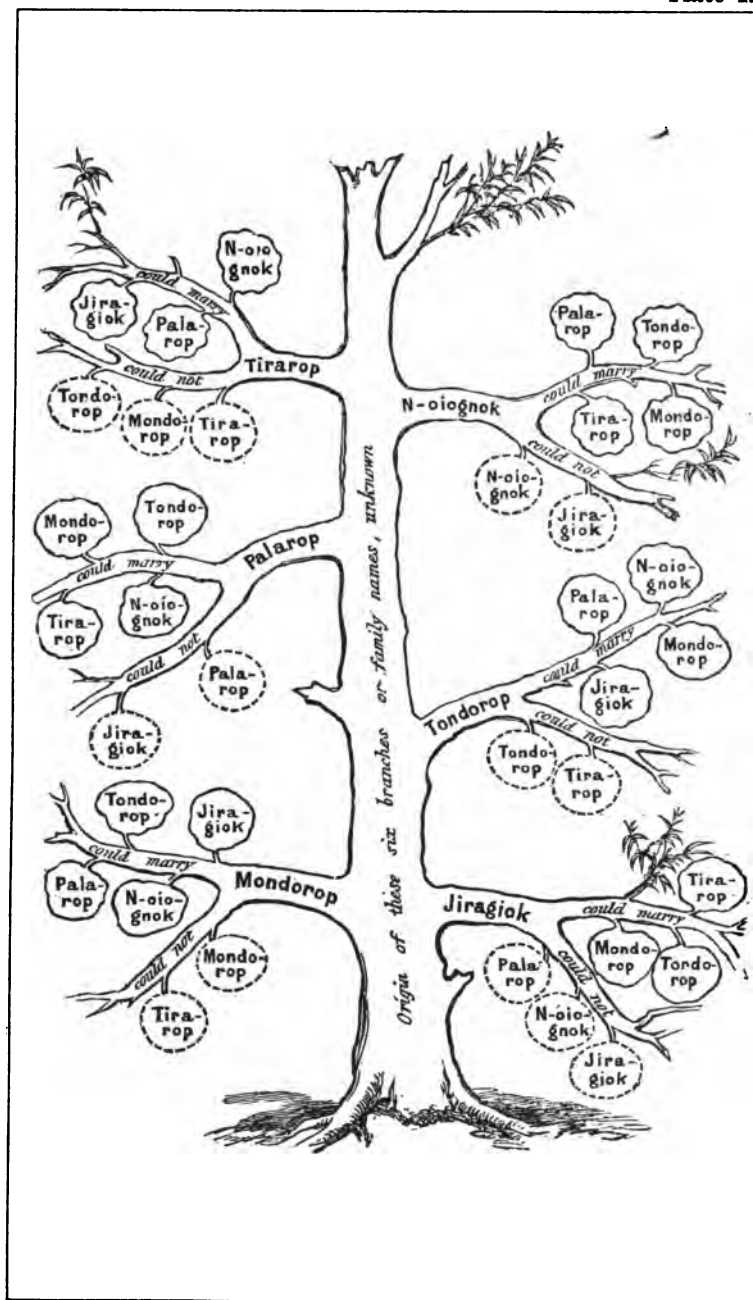
These divisions seem to be existent from time immemorial, and to have been enacted with a view to regulate their marriages. "A tribe is in fact but an enlargement of a family circle, and none within it can intermarry." * † In addition to this general law there are certain degrees of relationship within which intermarrying is prohibited. There is no doubt that in later times these laws have been relaxed, as, notwithstanding the general laws above referred to, intercourse between males and females of the same class has occurred and been regarded without disfavor. They have no law against polygamy; but whilst their customs do not limit the number of a man's wives, they inflict capital punishment on the man who marries within their prohibited rules of consanguinity as stated above.

The diagram (Plate No. 1.) is taken from "The Aborigines of Victoria," and shows in what lines and with what limitations aboriginal marriages may be contracted in that part of Australia, and will serve to illustrate the system generally followed throughout the continent.

The necessary connection of the children with a particular tribe is proven by the law of marriage and descent. There is undoubtedly a great deal yet to be ascertained respecting the classifications here described, and the laws which govern the natives in their relationship and marriages. The prohibitions here shown as existing amongst these tribes have had the effect of greatly reducing the number of in-and-in marriages. At present too little is known to admit of any theories being satisfactorily established; a wide field therefore lies open to investigators to discover the connection with these and somewhat similar laws in force amongst other peoples, in order to supply some data as to the original land from which the Australian natives emigrated, and also the approximate period when such migration took place.

Their laws in regard to food are many and singular in their operation, inasmuch as should a young man kill an animal of a certain class nothing would induce him to eat it; it would belong to the old men, or to certain of the aged women of his tribe. In other cases he is permitted to partake of certain portions of an animal, whilst the other parts would belong to the old men;

* Grey, Journals of Two Expeditions of Discovery. † B. Smyth's Aborigines, Vol. I.



and the fear of punishment by sickness, or perhaps death, did he eat of the forbidden joints, impels him to hand over, as soon as may be, the prohibited portions to those who are entitled to eat of them. Different kinds of food are allotted to different ages, so that as he passes through the various stages unto manhood the scope of his food supply is enlarged,* until he is finally enabled to partake of all meats which may come in his way, unless it be the animal representing the totem of the tribe; this he will not eat. It is said that these cunning old men established these prohibitory laws for the purpose of reserving to themselves those kinds of food which it was most difficult to procure, and that one effect of these prohibitions was to make the young men more expert in hunting. The women of the tribe are restricted, under heavy penalties, from eating certain things, or portions thereof, which are solely the right of the men.†

Each tribe, with some few exceptions, has its totem, represented by some animal which is regarded as its good genius and protector.‡ No member of the tribe will kill its totem, nor, if the guest of another tribe, will he (if he be a strong-minded man) partake of any portion of it, although he may be starving, and though his hosts may be thoroughly enjoying the feast made by an abundant supply of that which to him is *taboo*. If, however, he be a weak-minded man, and the pains of hunger compel him to eat of his totem, he will express his deep sorrow that he is thus forced to eat the flesh of his protector and friend.

Some tribes have as their totems different birds; others the bee, or an insect; and others a kangaroo, a snake, a dog, or a lizard.

The perceptive faculties of the natives are well developed, and their senses of hearing and seeing are acute, enabling them to note even the minute characteristics of natural and artificial objects, and to distinguish and imitate the sounds and movements of living beings.

The customs of the natives are so singular that they point most clearly, I think, to some long-forgotten source from which they are derived. The extreme ingenuity and elaborateness of some of their customs resemble more what we should expect from survivals of a former civilisation than the efforts of savages to rise to a higher sphere; nevertheless it must be admitted that no material relics of this supposed former civilisation have as yet been met with in Australia. There are indeed tribes in Equatorial Africa whose customs, especially that of tattooing, approach very closely to those of the aborigines of Australia, but this will be illustrated in another part of this work; and there are also strong affinities to these customs

* Meyer.

† B. Smyth.

‡ Taplin, Meyer, Grey.

amongst some of the hill tribes in Hindostan. If we instance the weapons used by the Australian natives, such as the boomerang, wommerah, and the weit-weit, these—although universal throughout our tribes—are yet not in use, so far as is at present known, by any Asiatic or African people; the difficulty, therefore, of locating the original country from which this people first migrated is almost insuperable.

The customs of one tribe may be taken as the customs of all, with slight variations or modifications, and these rather encourage the idea that all of them have sprung from one distinct body of emigrants who reached these shores, than that they are the issue of a mixed race of Pacific islanders, negroes from Africa, natives of the Malayan Archipelago, and natives of Hindostan. In support of their one original migration may be urged that most remarkable family likeness which prevails throughout the whole continent; and although there are occasional differences here and there, yet these very differences emphasise that family likeness. The Australian natives have been so completely isolated from other members of the human race—possibly for thousands of years—with the exception of occasional visits from trepang fishers, or searchers for the wild nutmeg (who only touched the skirt of the northern coasts), that it is not to be wondered at that the absolute homogeneousness referred to permeates all the tribes, in whatever part of the continent they exist. It is just possible that, if there be a cross, it took place amongst the first emigrants before they became broken up into independent families or tribes, and that such cross may have shattered the bonds of unity amongst them, giving rise to that dispersion and antagonism which we believe to have existed for ages amongst them.

There is abundant evidence that cannibalism prevailed at one time more or less throughout the whole of Australia. To this we have the testimony of nearly a score of writers. Nevertheless, the consensus of opinion is that the Australian aborigines, as a rule, have rarely sacrificed human life merely that they might cook and eat the flesh, as did the natives of adjoining islands. And to their credit must it also be said that they are ashamed of the practice, and have ever studiously sought to conceal the knowledge of it from the white man.

It appears evident that all the tribes firmly believed in metempsychosis, or the existence of spirits physically endowed, which they feared and dreaded, but whether they ever had any idea of a Supreme God is extremely doubtful. Their belief in witchcraft and sorcery was a settled conviction and a great motive power in the everyday life of the native, and it is impossible for us to duly

study or to form any accurate estimate of the general characteristics of the Australian aboriginal until this cardinal feature has been fully comprehended. The basis of sorcery amongst the natives was grounded in the fact that by means of charms and incantations the most important things in his daily life could be effected or rendered inoperative. And although the details and ceremonies observed by the sorcerer were somewhat modified amongst tribes widely apart, yet there can be no doubt that the method pursued, whether it was the taking of the life of an enemy, the counteracting his evil designs, the making of rain, the procuration of an abundance of food, or for the recovery of the sick, or in a more extended sense, the general mystification of his fellows, the results were the same throughout the land, and consequently left on the native mind a deep impression of the efficacy and power resulting from these mystic spells and weird invocations.

Amongst the whole of the tribes dancing and singing are favorite modes of passing time, and although their music is limited in its range of instruments and their singing confined to a few notes, their dancing is yet graceful after their own fashion and is neither vulgar nor indecent as some of the sacred dances of the refined Greeks or Romans when celebrating the religious ceremonies in the worship of Priapus. These wise and intelligent people practised secret rites, almost always accompanied by extravagant dances and mystical processions, which were invariably held at night; indeed all their religious rites were of a gay and festive character. The old comedies of the Birds, the Frogs, the Wasps, &c., consisted of imitations not only of individual men, but of the animals employed as symbols of the Deity. The choral parts were recited by persons disguised in imitation of these various animals, who mimicked their notes while chanting or singing the different parts. From a passage in Strabo x., p. 721, Æschylus tells us that similar imitations were practised in their mystic ceremonies, which may have been a reason for their gradual disuse upon all common occasions.

"The Psalm resounds,
The bull-voiced mimes striking terror with their mystic cries:
With the drum an Echo
As of Thunder underground is produced,
Making all things tremble."

We have in this quotation an almost perfect description of the secret ceremonies of the Australian aborigines, especially when the "Bull-roarer" is used, and we may imagine that in the lapse of time the worship of the gods of their ancestors

has become an unconscious heritage to our natives, although they can give no reason for the rites they practice.

A further parallel is, however, clearly traced if we adduce the mutilations as practised by the Australian tribes in their sacred ceremonies. In the histories of Greece and Rome we find records of religious enthusiasts amongst the priests and worshippers of Cybele in the voluntary mutilation they underwent; so also did the Phrygians at the festival of Atys; and similar ceremonies are described in both the Old and New Testaments, viz., in Deuteronomy and in St. Matthew's Gospel.

There is a marked difference between the singing of the Australian aborigine and that of the cultured performer of the present day. With the Australian singer neither chorus nor song end with a soft cadence or modulation of the voice, but, on the contrary, with so sudden and sharp an abruptness that the succeeding silence is most profound by its contrast. So also with their dances, for, when the action of the performers and their seeming uncontrollable excitement are at the highest pitch, in a moment it ceases, and so quick is the transition from rampant exertion to calm repose that the change seems almost magical.

In reverting to the practice of the native sorcerer he is but following the customs of the Pedlar-priests in the palmy days of Greece, for Plato tells us in his "Republic" ii., 7:—"Pedlar-priests, also prophets, frequent the houses of the rich, professing they have a power from the gods of expiating, by sacrifices and chanting and feasting in the midst of hilarity, whatever injustice has been committed by any one of his ancestors."

Idolatry has never been found amongst the aborigines in their native state. Neither have we any reason to suppose it ever existed amongst them; and although great reverence and high respect was always paid to age, yet we do not find any evidence of ancestor worship, veneration of the dead, or indeed of any form of worship with which we are acquainted, and they seem to be without speculation as to the future. Their belief, however, in a future state, or after life, is evidenced by the fear they have of the uprising of the dead to their hurt, which they counteract by the use of certain ceremonies of a secret character in order to lay and bind the unruly spirit.

If asked to adduce a reason for the origin of such customs their answer was always, "Our fathers did so; it is our custom." They cannot explain them, and they seek in vain for any reason which might lead to the origin of their oppressive laws and customs.

As evidence of the visit of foreign people to the north-west part of the continent, I have in my possession an image or idol found in



an excavation near Palmerston, in the Northern Territory, of which the following remarks are descriptive and also of the circumstances connected with its discovery.

Plate No. 2 is exact size of the image which was found in the year 1879 by Mr. Strawbridge, then an officer in the Public Works Department of the colony, who was superintending a party of Chinese laborers employed by the Government in clearing a road through the dense scrub or jungle which then existed between the inhabited portion of the town of Palmerston at Port Darwin and the seacoast. About 60 chains west from the east end of Mitchell-street, and fully 70ft. above the sea level, they came across a large banyan tree growing in the centre of the line of road, which it was necessary should be removed. A gang of men was told off to uproot the tree, and at about 4ft. below the surface this image was found firmly wedged in between the roots. It appeared to have been buried for a long period of time, being quite black with the impregnations of the soil. It represents a man clothed in long flowing robes, bound round the loins with a girdle, and with a long beard reaching down to the waist, seated astride of an elegantly-formed gazelle or antelope. The animal has lost both horns and part of the muzzle, but shows the cloven hoof. There appears to be a saddle with a raised pommel on the animal, but no stirrups. The left hand of the rider evidently grasped one of the horns, that on the left side, but was lost when the horn was broken off. The right hand, which is beautifully formed, holds what looks like a large mango or, as it might be, a cocoanut. The lobes of his ears are very long and pendant, the mouth large, with full lips; the nose long and finely formed; and the eyes of the Caucasian type, full and prominent. He wears a peculiar head dress, with an oval ornament on the front, fitting close to the head, but so covering the hair that it is not shown except at the back, where it appears below the head covering, rolled up and tied in a knot. The feet appear to be covered with square-toed shoes, the sole being shown as distinct from the upper leather. The material out of which this is carved is a kind of jade, now very hard and nicely polished. Models of this image have been sent to the Brahminical colleges in Bombay, with a view to ascertain its nature and meaning, but without result.

CHAPTER II.

DRAWINGS, ETC.

The manufacture of pigments used by the natives in their paintings is in some respects very ingenious, and also very interesting from their nature and variety. Sir George Grey, in his valuable work,* relates his experiences in the north-west country near King's Sound, and points out that in the painted caves on the north-western coasts, seven colors were used—red (of which there are several shades), yellow, blue, black, brown, a bluish green, and white. With the exception of blue, these colors are all known to the natives of the whole continent. The first color they either dig up from the earth, fit for use, in the form of red earthy pebbles, or they find it in the form of a brilliant yellow clay, which they beat, clean, and dry, leaving it exposed to the air for several days. It is then baked in a bark basket, and then, if the clay is good, and well prepared and burnt, it is nearly as bright as vermilion. In some places, however, no good clay can be found, and in this case the natives meet at an annual fair to exchange certain commodities only locally produced, when this brilliant red ochre becomes a very valuable article of traffic. Yellow they obtain from several sources; the most common is the yellow clay, from which the red is afterwards produced; but they also procure it from a stone, which is traversed by veins of yellow earth; from the interior of the nest of a species of ant, which collects a yellow dust; and from a sort of fungus from which a similar dust is also obtained. The black is nothing but finely-pounded charcoal. The white is a very fine greasy species of pipeclay, common all over Australia, and which they use either wet or dry. There are, however, other modes and sources of obtaining pigments than those he describes; for instance, the blue, which is very dark and brilliant, they possibly obtain from the seed vessel of a very common plant, which on being broken yields a few drops of blue liquid. They also get this color from blue carbonate of copper ground to powder and moistened with fat or water. The natives have at least two colors of this pigment, one the reddish yellow obtained from ochre, and the other a lemon-tinted yellow, probably obtained from the sapwood of large trees, such

* Journal of Two Expeditions in Australia, 1837-1839.

as the sandal-wood. The use of these two latter pigments is perplexing, as we do not find it employed for any of the other purposes for which red, white, and black are used

The native tribes around Adelaide obtained a brighter red pigment from the bulbous roots of the little sundew plant, which contains a small red pustule between the brown outer skin and the white inner bulb. This red pustule they used to scrape off and mix with fat for coloring the fillet of opossum hair-twine which they bound round their heads. These pigments are sometimes mixed with fat, although in many cave paintings they are also made with a resinous gum insoluble in water, rendering them capable of resisting for a long period the usual atmospheric causes of decay. With regard to the age of these paintings there is no clue to guide us, but it is certain that they are very ancient.

The art and skill with which some of the figures have been drawn, and the great effect which has been produced by such simple means, renders it most probable that these paintings generally were executed with the intention of working upon the fears and superstitious feelings of the ignorant and barbarous natives; for such a purpose they are, indeed, well calculated, and an attentive examination of the characteristics of the figures first discovered, more particularly of that one over the entrance of the cave described by Sir George Grey, will tend considerably to bear out this conclusion.

It is a singularity worthy of remark that the drawings found in the vicinity of the coast were nothing but the rudest scratches, but as we proceed into the interior the drawings gradually improve. This better class, as described by Sir George Grey, were some seventy miles from the seacoast; and there were others of similar character near Alice Springs, in the very heart of the continent.

I have no doubt that were this subject followed up by intelligent explorers and others who may be brought into contact with examples of native art that much profit and great pleasure would be derived from their reproduction and publication. With respect to paintings, with the single exception of those described by Sir George Grey, a family likeness marks them all; the details are everywhere the same—no variations show themselves. All are imitative, the resultant product of untutored taste. Diligent research may also bring to light other illustrations of the awakening consciousness of the savage in his effort either in carving, sculpture, or in painting to express the artistic tastes he felt working within him.

I throw out this suggestion being unaware that any attempt has hitherto been made to collect and group within a small space these

illustrations with a view to their preservation for future reference and investigation.

There can be no doubt, from the testimony of all the voyagers and explorers who in former times have had intercourse with the natives, that the clothing they wore was limited to a narrow belt round the waist, which held their shorter implements used in the procurement of their daily food or in their tribal wars, and a very narrow head-band or fillet which confined their hair.

The only attempt that has been made by the natives to adorn their persons, so far as we know, prior to the advent of Europeans was in painting their bodies on festive or warlike occasions, and in tattooing the upper parts of their persons—if it can truly be said to be tattooing—which consisted in little more than cutting transverse cicatrices or scars, without a particle of ornamental coloring. The parts generally selected for this operation were the shoulders, the back, the breast, and the arms, although there are many instances of the whole of the back and thighs being scored in this manner; this, however, is only seen amongst the mashers of the tribe. This practice of tattooing was common all over the continent, varying in character amongst the respective tribes, each having its own distinctive marks, although all patterned upon one solitary idea.

Whatever of art, therefore, as existing amongst the natives must be looked for apart from their personal adornments. It can, however, be found carved on their weapons, sculptured on rocks, and painted in caves.

In any country, indeed, whether in civilised or in the most barbarous nations, wherever arms of offence or defence are to be found, there we may also look for the decorative arts, in a greater or lesser degree, for the adornment of the weapons of war or the chase. This is amply shown in "Angas, South Australia," Plates 5, 6, 27, 30, 47, and 51.

And this leading characteristic exists amongst all the tribes of our aborigines. Their shields, waddies, boomerangs, and throwing sticks are enriched either by color or carving of a certain kind and value. Added to this there are in various parts of Australia, widely separated by land or sea, works of sculpture and art, decorative works of such peculiar cunning and handicraft that perhaps few have had the opportunity of seeing.

Be it my duty, therefore, to compile, as far as possible, sufficient to show the class of art workmanship which has existed and still prevails amongst the natives of this great land. The first to call attention to the paintings to be found in various and widely separated portions of this continent was Captain Matthew Flinders, whose

- invaluable services to Australia have not yet met with that honorable recognition which they undoubtedly merit.

Captain Flinders, in his voyage to survey the northern coasts abutting on the Gulf of Carpentaria and Torres Straits in 1802-3, says:—"In the morning of the 14th we weathered all these, and, on the wind dying away, anchored in $11\frac{1}{2}$ fathoms, about three miles from a high cliffy island."

He went in a boat to this island with the botanist, intending to take bearings from the uppermost cliffs, but the many and deep chasms by which the upper parts are intersected made it impossible to reach the top in the short time they had to spare, so that a few bearings from the eastern low point were all that could be obtained. This was called "Chasm Island." It lies one mile and a half from a low point off "Groote Eylandt," near the western shores of the gulf where the shore trends southwards, forming a bay into which he proposed to conduct the ship.

In the sides of these chasms were deep holes or caverns, undermining the cliffs, upon the walls of which were found rude drawings made with charcoal and something like red paint upon the white ground of the rock. The drawings represented porpoises, turtles, kangaroos, and a human hand; and Mr. Westall, who went afterwards to see them, found the representations of a kangaroo, with a file of thirty-two persons following after it. The third man of the band, who was probably intended to represent a chief, was twice the height of the others, and held in his hand something resembling the waddy, or wooden sword, of the natives of Port Jackson. The natives could not, as with us, indicate superiority by clothing or ornament, since they wear none of any kind, and therefore, with the addition of weapons on the one hand and unusual height on the other, they made superiority of person the principal emblem of superior power, physical distinction being a leading characteristic of the very early stages of society.

In the survey of the coast of Australia by Captain P. King, between the years 1818 and 1822, we have the following graphic description of other curious drawings as follows:—

"The day after we arrived here (that is, in Princess Charlotte Bay, on the north-east coast of Australia) a boat from the *San Antonio* conveyed Mr. Montgomery and Mr. Cunningham to Clack's Island. The south and south-eastern extremes of Clack's Island presented a steep, rocky bluff, thinly covered with small trees. I ascended the steep head, which rose to an elevation of 180ft. above the sea. The remarkable structure of this islet led me to examine the south-east part, which was the most exposed to the weather, and where the disposition of the strata was, of

course, more plainly developed. The base is coarse granular silicious sandstone, in which large pebbles of quartz and jasper are imbedded. This stratum continues for 16ft. to 20ft. above the water. For the next 10ft. there is a horizontal stratum of black schistose rock, which was of so soft a consistence that the weather had excavated several tiers of galleries, upon the roof and sides of which some curious drawings were observed, which deserve to be particularly described. They were executed upon a ground of red ochre, rubbed on the black schistus, and were delineated by dots of a white argillaceous earth, which had been worked up into a paste. They represented tolerable figures of sharks, porpoises, turtles, lizards (of which I saw several small ones among the rocks), trepang, starfish, clubs, canoes, water-gourds, and some quadrupeds, which were probably intended to represent kangaroos and dogs. The figures, besides being outlined by the dots, were decorated all over with the same pigment in dotted transverse belts. Tracing a gallery round to windward, it brought me to a commodious cave, overhung by a portion of the schistus, sufficiently large to shelter twenty natives, whose recent fire-places appeared on the projecting area of the cave. Many turtles' heads were placed on the shelves or niches of the excavation, amply demonstrative of the luxurious and profuse mode of life these outcasts of society had, at a rather recent period, followed. The roof and the sides of this snug retreat were also entirely covered with the uncouth figures I have already described. As this is the first specimen of Australian taste in the fine arts that we have detected in these voyages, it became me to make a particular observation thereon." The figures here seen exceed 150 in number.

In the explorations of Sir George Grey in 1838 he describes some very interesting paintings, which he was the first European to discover. He had found great difficulty in securing a practicable route on the course he was proceeding when his attention was drawn to the numerous remains of native fires and encampments, and specially so on looking over some bushes at the sandstone rocks which were above them, where he suddenly saw a large and extraordinary looking figure peering down upon him. Upon approaching the spot this proved to be a drawing at the entrance to a cave, which, on going in, he found to contain many other remarkable paintings.

"The cave appeared to be a natural hollow in the sandstone rock, with an elevated floor about 5ft. from the ground. Numerous flat broken pieces of rock, which were scattered about, looked at a distance like steps leading up to the cave, which was 35ft. wide at the entrance and 16ft. deep, and, beyond this, several

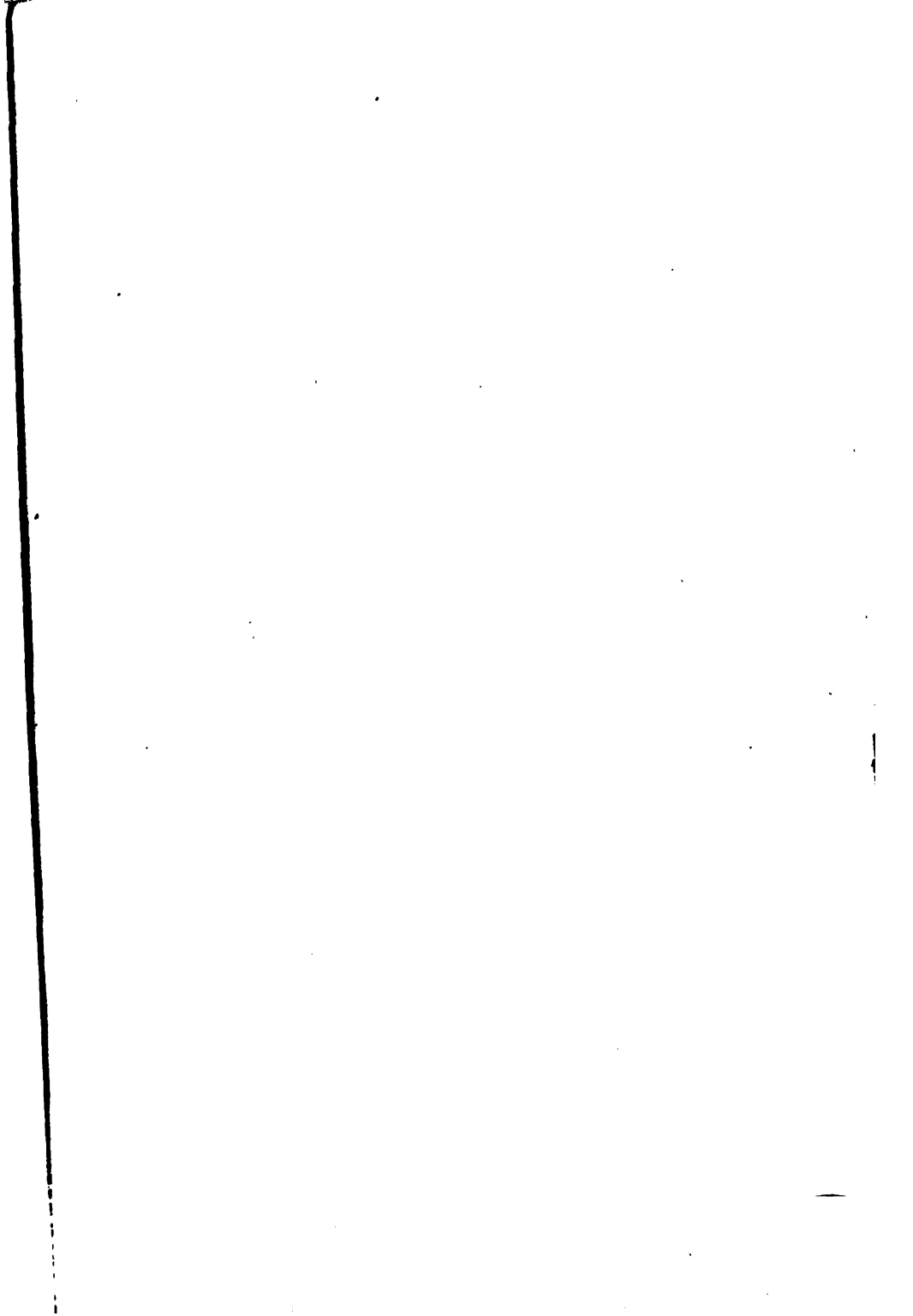


Plate 3.



small branches ran further back. Its height in front was rather more than 8ft., the roof being formed by a solid slab of sandstone about 9ft. thick, and which rapidly inclined towards the back of the cave, where the height was not more than 5ft.

"On this sloping roof the principal figure was drawn. In order to produce the greater effect the rock about it was painted black, and the figure itself colored with the most vivid red and white. It thus appeared to stand out in full relief from the rock. The effect upon Sir George was most startling as he suddenly saw this gigantic head and upper part of a body bending over and staring grimly down at him.

"As it would be impossible to convey in words an adequate idea of this uncouth and savage figure, the following succinct account of this and the other paintings will serve as a sort of description. The dimensions of the figure were described as follows:—

	Ft.	In.
Length of head and face.....	2	0
Width of face	1	5
Length from bottom of face to navel	2	6

Its head was encircled by bright red rays, something like the rays one sees proceeding from the sun, when depicted on the signboard of a public-house; inside of this came a broad stripe of very brilliant red, which was coped by lines of white, but both inside and outside of this red space were narrow stripes of a still deeper red, intended probably to mark its boundaries; the face was painted vividly white and the eyes black, being, however, surrounded by red and yellow lines; the body, hands, and arms were outlined in red, the body being curiously painted with red stripes and bars" (as shown in Plate No. 3).

This peculiar head-dress is not often found amongst the natives, but it is used by the aborigines of Cape York in their corroborees, and will be referred to more at length in the section under the head of "Personal Adornment."

"Upon the rock which formed the left hand wall of this cave, and which partly faced one on entering, was a very singular painting, vividly colored, representing four heads joined together. From the mild expression of the countenances they were supposed to represent females, and they appeared to be drawn in such a manner and in such a position as to be looking up at the principal figure before described; each had a very remarkable head-dress colored with bright blue, and one wore a necklace. Both of the lower figures had a sort of dress, painted with red in the same manner as that of the principal figure, and one of them had a band round her waist. Each of the four faces was marked



were colored red, yellow, and white, and the eyes were the only features represented on the face. Upon the highest bandage or roller was a series of lines painted in red, but, although so regularly done as to indicate that they had some meaning, it was impossible to tell whether they were intended to depict written characters or some ornament for the head. This figure was so drawn on the roof that its feet were just in front of the natural seat, whilst its head and face looked directly down upon anyone who stood in the entrance of the cave, but was totally invisible from outside. The painting was much injured by the damp and atmosphere, and had the appearance of being much more defaced and ancient than any of the others which had been seen. Besides these were two paintings, one on each of the rocks which stood on either side of the natural seat. They were carefully executed, and yet had no apparent design in them, unless they were intended to represent some fabulous species of turtle, for the Australian natives are very fond of narrating tales of extraordinary animals.

"One of the party, who appeared much amused at these different paintings, walked straight up the cavern, gradually ascending the steps until he reached the slab at the end, and then, taking his hat off with a solemn air, seated himself, when, to his own and their surprise, his bare head just touched the roof of the cave. On examining this part of it, it was found fairly polished, and very greasy, from all appearance caused by the constant rubbing against it of the head of a person whilst seated on the rock. This and other circumstances led the explorers to conjecture that the cave was frequented by some wise man or native doctor, who was resorted to by the inhabitants in cases of disease or witchcraft."

A theory has been advanced by my friend Dr. A. Carroll, of Sydney, in a communication to me, that the languages of the Red Sea merchants can be read in the letters on the head-dress of this figure and on the marks near the right arm. He supposes that these merchants traded with the Persian Gulf, Ceylon, India, and Sumatra, from which, by some sudden storm, they might haply be carried to the north-west coast of Australia, and could have thus transmitted such characters as are shown on the head-dress.

He says that he was able to decipher the character formed upon this figure, and that the translation is "I am a great personage, or chieftain of —" (the north-east country of the Red Sea).

My friend Mr. J. A. Panton, of Melbourne, in a letter to me on the paintings of the natives, also says:—"The characters on the turban of this figure will, I feel convinced, give a clue to the race or nationality of the artist. I have hunted up many Oriental alphabets,

but overlooked the Malayan. A correspondent in one of our daily papers,* in recommending explorers of New Guinea to look out for traces of Malayan occupation and inscriptions, had given examples of a few characters of the Sumatran or Malayan language, in which I at once recognised a resemblance to those on the figure in the cave. According to the examples given by the writer of the letter in the *Argus* (the Rev. J. Macdonald), 5 T I correspond with L. T. B. of the Chaldæo-Phœnician; but, inasmuch as the characters of both languages so closely resemble each other, I concluded that this inscription on the figure is Malayan-Sumatran. The women of the Malay Archipelago wear 'Sarongs' of stamped cotton, and their chiefs and priests robes and turbans as depicted in the cave drawings. I, therefore, think we may reasonably conclude that these drawings or paintings were executed by Malay artists and represent Malay or Sumatran figures, the chief or captain having the name on the turban, and the lines o o o o representing members of the crews of each proah."

This painting appeared to Sir George Grey to have been the longest executed. He came to this conclusion from its state of decay and dilapidation, and these may possibly have misled him very much; but whatever may be the age of these paintings, it is, I think, scarcely possible that they could have been executed as my friend suggests, or could have the meaning attached to the characters o o o o which he seems to attribute to them. In order to show in what respects Mr. Panton imagines the letters on the figure to be Malayan-Sumatran, and of late—not remote—origin, the Rev. John Mathew, of Coburg, Victoria, in a paper on the Australian aborigines, read before the Royal Society of New South Wales, December 4th, 1889, in reference to the characters on the head-dress of this figure, remarks as follows:—"I was struck with the resemblance which certain characters on the head-dress of this figure bore to the Sumatran alphabet, and was led to a diligent attempt to decipher them, which has resulted in success. By a careful comparison of the letters of the painting with the various types of Sumatran writing illustrated in V. D. Tuuk's 'Les Manuscrits Lampongs' and other works, I made out the first four letters to spell "daibai." Then searching for some such word or name as current in the home of the alphabet, I found the following observation in 'Marsden's History of Sumatra.' They use both in Rejang and Passamarah the word 'dewa' to express a superior invisible class of beings, but each country acknowledges it to be of foreign derivation. . . . The Battas, inhabitants of the northern end of Sumatra, use the word 'daibattah.' . . . The Cingalese

* Melbourne *Argus*, August, 1883.

'dewiju,' the Telingas of India 'dai-wunda,' the Baijus of Borneo 'dewattah,' &c., all these terms being names to express a deity, or some degree of superior being. Having, therefore, spelt out daibai I was evidently on the right track, and the following is the inscription with full interpretation :—

"These characters with values assigned occur in 'Les Manuscrits Lampongs' in the following places specially, but not exclusively by any means :—The first character on pp. 64 and 101, the second, third, and, of course, the fourth on pp. 56 and 101; in fact, the third occurs all over, but with varying degrees of obliquity. The fifth character is the most doubtful of all. It might be either 'pa' or 'ta'; all that it requires to make it 'ta' in the regular Lampong writing is a light top stroke. The letter 'ta' is manifestly related in form to 'da.' The identification of the final letter was difficult, but on page 3 of V. D. Tuuk's 'Les Manuscrits Lampongs' will be found a similar form with the value of 'h,' the only difference being that the lines are not joined at the angle. The smaller size of the final letter and its resemblance to the sign for 'h,' which, like the Lampong vowels generally, is smaller and more variable than the mutes, almost compel the conclusion that it represents 'h'; these references should be consulted in conjunction with the styles of alphabets given at the end of 'Les Manuscrits Lampongs.' This painting, therefore, is a figure of Daibaitah, a Sumatran supernatural being or deity corresponding to the Indian 'Daira,' fate or destiny." Mr. Mathews then goes on to say—"The name finds a parallel in our own word *divinity*, and the two words prove the penetrating power of religious ideas. It has been suggested to me by Prof. Odium, of the Wesleyan Methodist College, Japan, that the word 'Daibaitah' may be a form of 'Daibutsu' (translated Great Buddha), the name by which the great Japanese bronze image of Buddha, 44ft. in height, is known. There is thus open an alternative derivation both of the figure and the name. I prefer to derive from Indian sources, as it is just possible that the current etymology of the Japanese word may not be correct." I here annex an extract from the letter in the *Argus* which, speaking of the Polynesian languages, is as follows :—

"William von Humboldt, who believed that the Polynesian languages were of the Indo-European stock, was not able to affiliate the Polynesian alphabets in accordance with that theory. On the contrary, he was obliged to say that they were of unknown origin, and that their prototype must be of remote antiquity, and had probably served also as the base of the *devanagari* itself. This perfectly accords with our theory of the direct descent of these Polynesian alphabetic characters from the Phœnician. In the

fourth volume of the *Journal of the Anthropological Institute*, there is an interesting paper by Mr. J. P. Harrison, on 'Phœnician Characters from Sumatra,' with a plate, in which the Sumatran and Phœnician characters are placed side by side. (See Plate No. 5).

"We give this illustration for the practical use it may be of any future voyagers to the islands. Mr. Harrison says:—'These characters are said to be still in use in the districts of Rejang, Lemba, and Passumah in Sumatra. MSS. on thirty-one tablets, formed of split bamboos, were, it appears, acquired many years ago by the old East India Company, and are now in the library of the India Office. Nearly the whole of the letters inscribed on the convex surfaces of the bamboos are identical in form with Phœnician characters mostly of a pure period, and afford a very remarkable instance of the survival of an early form of writing adopted by a non-literary race.'

"The theory that the Sumatrans are of the same race as the original inventors and users of the so-called Phœnician alphabet has evidently not occurred to Mr. Harrison.

"The twentieth letter of the Rejang alphabet is the only one that has not been identified. It should be mentioned that the order of the letters is not the same as in the Phœnician, and the letters themselves are generally reversed; their values also are different.'

"Mr. Harrison's theory of explanation is as follows:—

"Both in Java.... and Sumatra.... written traditions, mixed with fable, refer to the arrival of ships in remote times, and at two different epochs, from the Red Sea and the Persian Gulf—in the one case at a time when vessels still coasted round the Bay of Bengal; in the other, in the age of Alexander, who is said to have built a bridge "in the sea," which may mean that ships commanded by some of his officers arrived direct from India. Three of his descendants are also said to have become kings of Palembang, &c. The ships would have been manned principally by Phœnician sailors. Stripped of legendary matter, there seems nothing contrary to, or inconsistent with, history in these traditions, which consequently possess a certain value, apart from the evidence afforded by the MSS. The importance attending the identification of these characters is principally ethnographical.'

"I cannot, however, agree with the idea here hinted at—possible, of course, but improbable to the last degree—that either at or previous to the time of Alexander some Phœnician sailors taught their alphabet to the alien aborigines of Malayan Polynesia. These aborigines brought their alphabet with them from the

Plate 5

REJANG (SUMATRAN) ALPHABET.

h k g t d b m y l

PHENICIAN.

h k g t d b m y l

REJANG.

h k g t d b m y l

PHENICIAN.

h k g t d b m y l

Plate 6

SUMATRAN.

h k g t d b m y l

PHENICIAN.

h k g t d b m y l

SUMATRAN.

ch t k p a

PHENICIAN.

ch t k p a



Persian Gulf, where it was invented by people of their own race, and whence it was carried all over the world, east and west, and adopted sometimes by people of alien race. But the probability is that this alphabet, which seems to be the nearest of all living or in present use to the old Phœnician, was never used by people of alien race to its first inventors.

"Not to discuss this point at greater length on the present occasion, let me conclude by observing that the vowels in these alphabets, as in most Shemitic alphabets, are denoted by points or marks joined or placed near to the consonants, and by giving the Sumatran characters with the corresponding ancient Phœnician. (See Plate No. 6.)

"These Polynesian characters are from *Crawford's Dissertation*. Many other interesting comparisons could be made, but these seem pretty conclusive, and it is to be hoped that scholars will take up the matter and deal with it exhaustively. The eleven Polynesian alphabets are undoubtedly of the same origin. The comparison of these alphabets with the Phœnician, and of the languages written in these alphabets with that written in the Phœnician, give results altogether in favor of the theory of the original peopling of Oceania by the Chaldæo-Sabæans, or Phœnicians of the Persian Gulf. According to it, Sumatra would be the first part of Eastern Oceania touched at and colonised by them. And this, no doubt, sufficiently accounts for the tradition among the Malays that Sumatra was the island from which their race migrated into all the neighboring islands of the archipelago. Peculiar interest, therefore, attaches to Sumatra; but how little do we know of it. Its people seem to have degenerated. Some of them are cannibals, yet are they the only cannibals in the world who have an alphabet? As Latham, in his peculiar style, says, they are 'cannibals of a peculiar kind, under peculiar circumstances. They are cannibals, and yet not pagans. They are cannibals, and yet not without an alphabet. They are cannibals with either the germ or the fragments of a literature.' According to the theory we advocate, not the 'germ' but 'the fragments of a literature;' and the fragments, also, of an ancient civilisation that once swayed the whole world, other fragments of which have been found on the shores or at the head of the Persian Gulf."

"Another remarkable drawing in the cave containing the other paintings was an ellipse 3ft. in length and 1ft. 10in. in breadth. The outside line was painted in a deep blue color, the body of the ellipse being of a bright yellow dotted over with red lines and spots, whilst across it ran two transverse lines of blue. Upon this yellow ground was painted a kangaroo and also two round black

hemispheres, intended, I believe, to represent the two projections of a handle fitted into a shield. I have seen many of these bark shields with the ends of the handles projecting in a similar manner." There was another humorous sketch (Plate No. 7) representing a man carrying a kangaroo, the height of the man being 3ft.

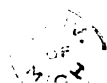
"The number of drawings in the cave could not altogether have been less than from fifty to sixty, but the majority of them consisted of men, kangaroos, &c., being carelessly executed, and having evidently a very different origin to those first described. Another very striking piece of art was exhibited in the gloomy cavities situated at the back of the main cavern. In these instances some rocks at the sides of the cavity had been selected, and the stamp of a hand and arm by some means transferred to it; this outline of the hand and arm was then painted black, and the rock about it white, so that, on entering that part of the cave, it appeared as if a human hand and arm were projecting through a crevice admitting light."

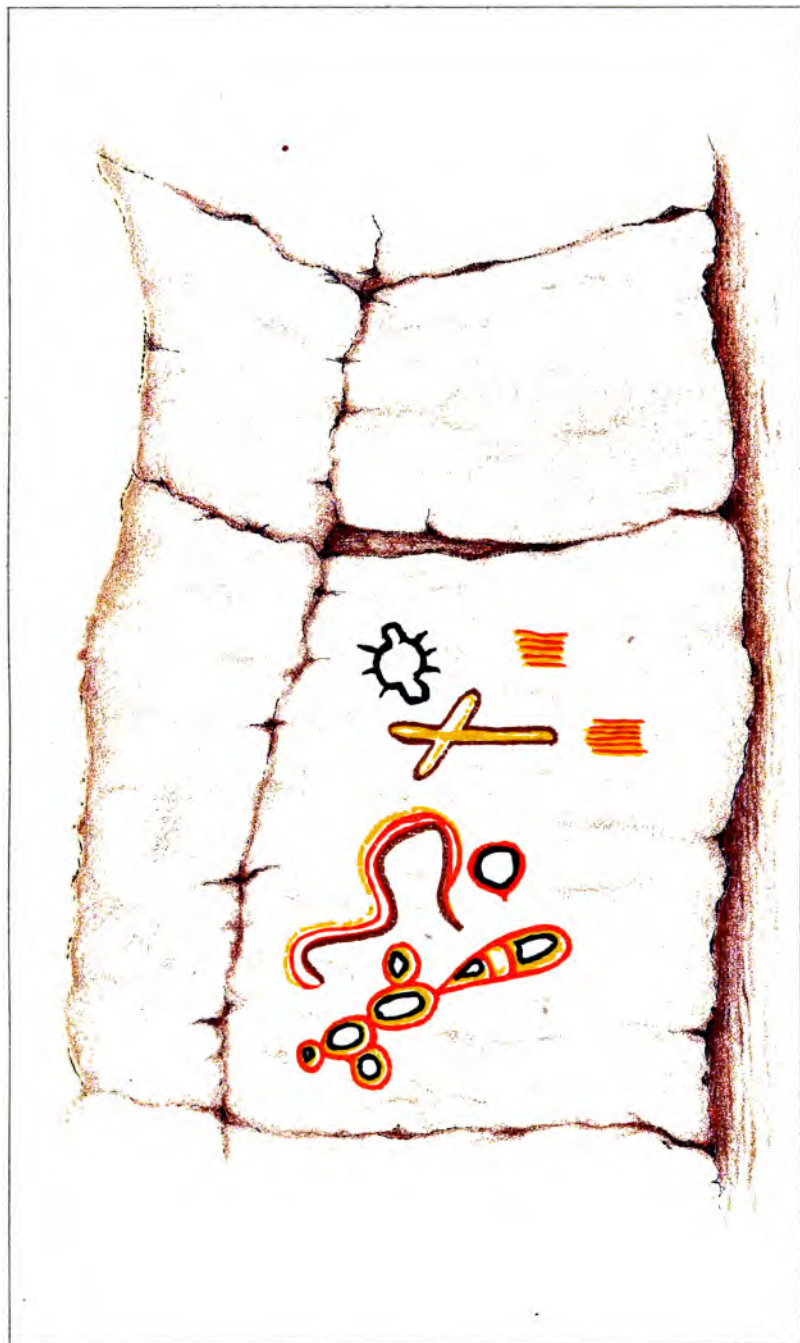
In the same district, near Kimberley, in Western Australia, Mr. Harry Stockdale discovered a native art gallery on the McLeod river.* The river runs between immense cliffs from 200ft. to 300ft. high and almost perpendicular, on the large smooth slabs of which were a large number of native drawings occupying a space of fully twenty yards, and consisting of kangaroos, platypus, also *a figure resembling a monkey*, blackfellows dancing the corroboree, the bust of a native woman and many others. besides an excellent life-size drawing representing an emu as feeding. The bird was true to nature and well done; the whole of the drawings were filled in or shaded, and showed much artistic taste, the mouths of the faces alone being badly represented.

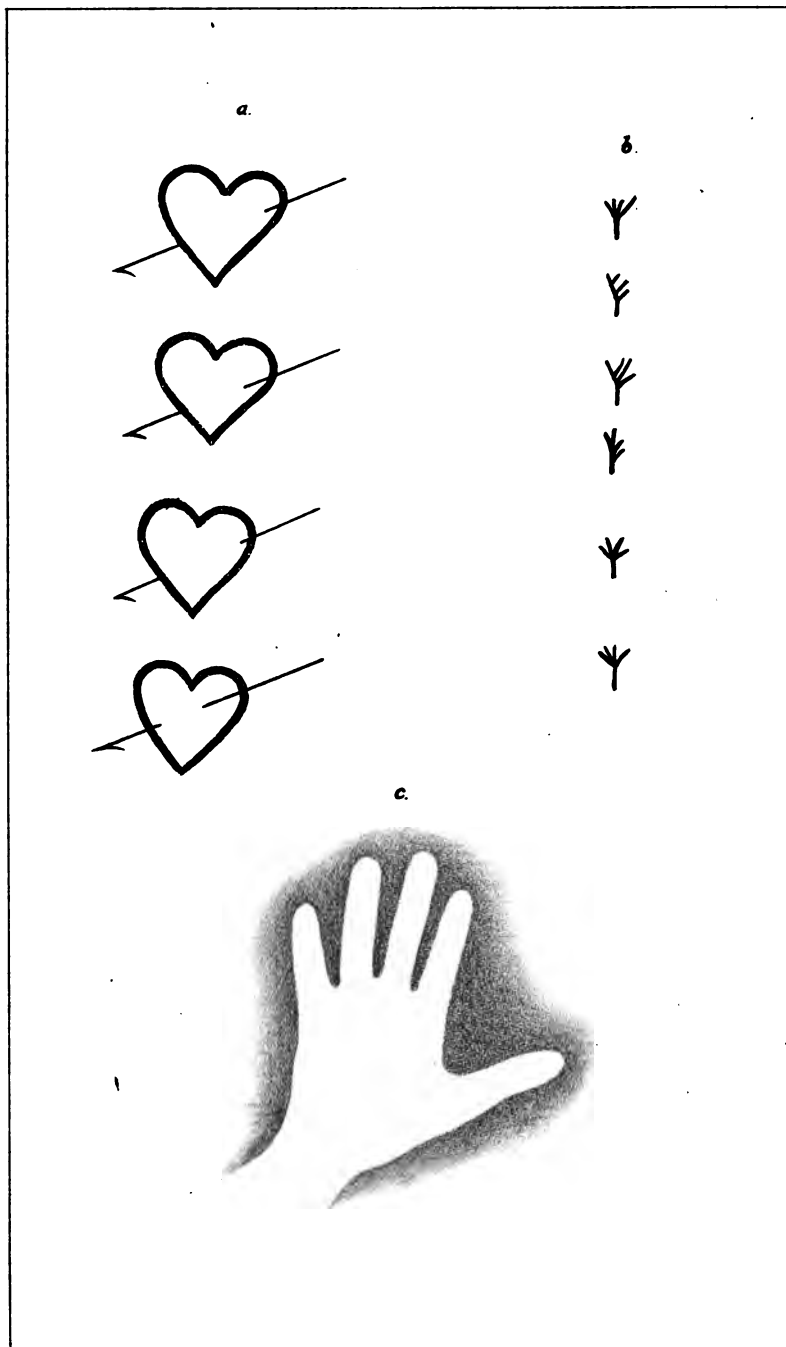
On the Darwin river near the bar, where the salt water meets the fresh is a native camp.† Here are some excellent drawings on trees; one of these is a human figure (full size), the outlines being painted in red. (See Fig. 1, Plate No. 8.) Fig. 2 represents a kangaroo pierced by a spear, with a waddy, thrown very likely by the same native who owns the spear; had the spear missed its mark some injury might have been done by the waddy. The other figures are a goose just taking flight and a shield.

The illustration shown in Fig. 1, Plate No. 9, taken at the foot of Lagoon Hill on the Blackmore river, is a native painting on a tree outlined in red. It represents a human figure pierced by a large number of spears. The spears are all of the barbed kind. Here

* Paper read before the Royal Geographical Society of Australia. † Beetsen's letters.







the tribes hold their war dances, and when they are beheld at night, by the wavering and flashing lights of the surrounding fires, they have a decidedly striking effect. The above painting is intended to represent how the fighting men of the tribe will destroy the enemy.

On the overland track between the northern stations of Queensland and Port Darwin a party of men in charge of a mob of cattle found among the coast ranges some frescoes on the walls of a cave. One wall was covered with representations of alligators, snakes, turtles, and starfish; but the chief of the drawings was a full length representation of a great blackfellow pursuing two little white men, who seem to be in such fear that their hair was standing on end; a third was lying prostrate with a spear through his body.*

Emily Gap, in the Macdonnell Ranges, is one of three passes through this range to the Alice Springs Telegraph Station from the south. Through this gap the camel caravans and horsemen pass, as it is considerably shorter than the other two passes which are to the westward. There was formerly a waterhole here, which has become filled in by the large number of cattle watering at it and the shifting nature of the creek bed. A well now takes its place, giving a plentiful supply of water, which is discharged into a set of troughs where three or four thousand head of cattle are watered; the work of drawing water is done by natives employed for that purpose. In ancient times it was evidently a favorite camping-place, and the characters here represented are *fac similes* of the rock and the paintings on it; the colors used were red and yellow ochre and a black pigment mixed with fat. The black pigment is not charcoal, and it is at present not known what this substance is. The natives, especially the old men, declare emphatically that the rock paintings had at one time an intelligent meaning, the significance of which has in the progress of time been entirely lost. The drawings (see Fig. 2, Plate No. 9) disclose a snake, a cross, apparently a beetle, and sundry hieroglyphics which are seen on a rock situate on the Lizzie Creek, about 100 miles east of Emily Gap.

The group of native drawings which is shown on Plate No. 10 is found in several large caves near Mount Skinner and Ledan's Hill, in lat. 22° 30' S. and long. 134° 30' E.† The natives appear to have selected the smooth surface of granite rocks inside several large caves, which are not subject to the influence of wind or rain, and are resorted to by the natives during excessive wet seasons, as indicated by their camp preparations. It is

* Digging, Squatting, and Pioneering Life.—Mrs. D. Daly. † Mr. Winnecke's letters.

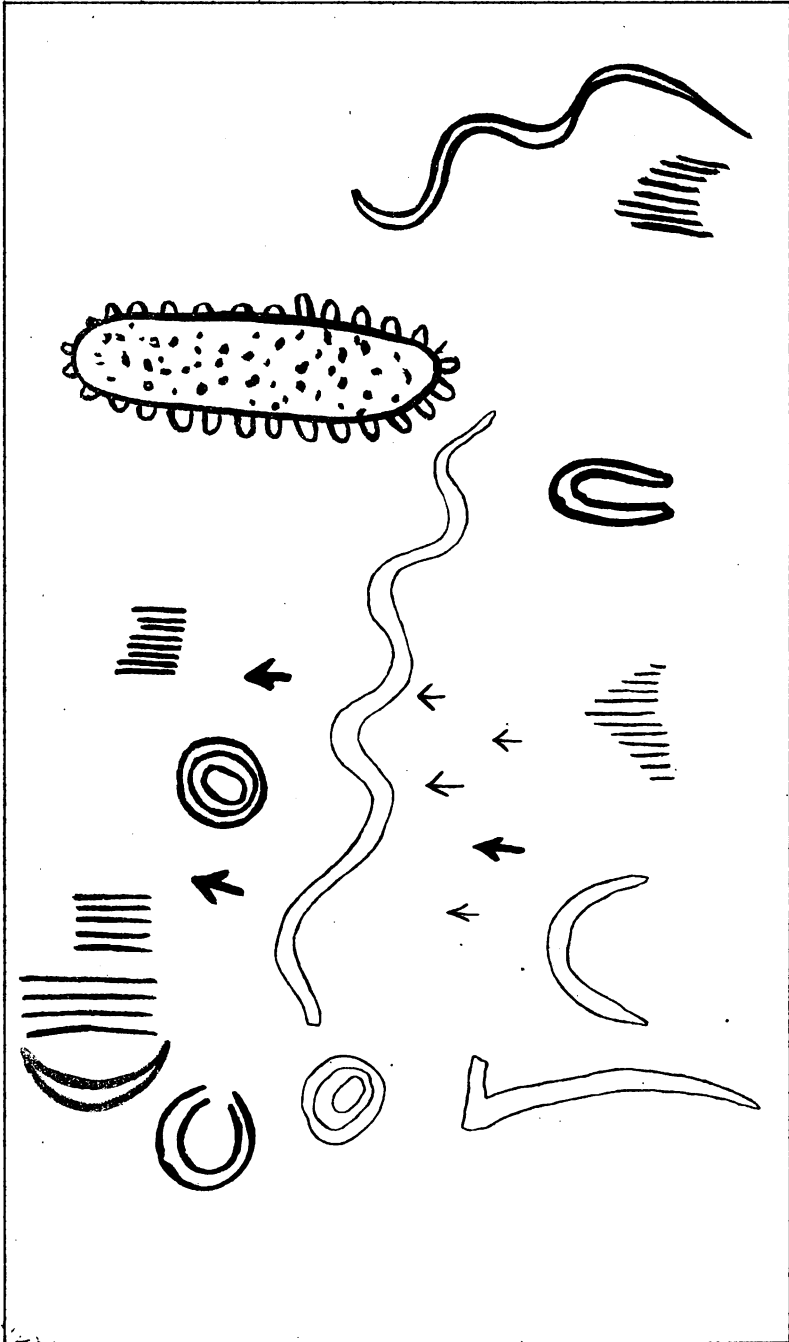
beyond doubt that these drawings have been performed during these periods of forced inactivity by some artistically-inclined native. Those I am alluding to are somewhat numerous in these particular localities, and present a uniform appearance.

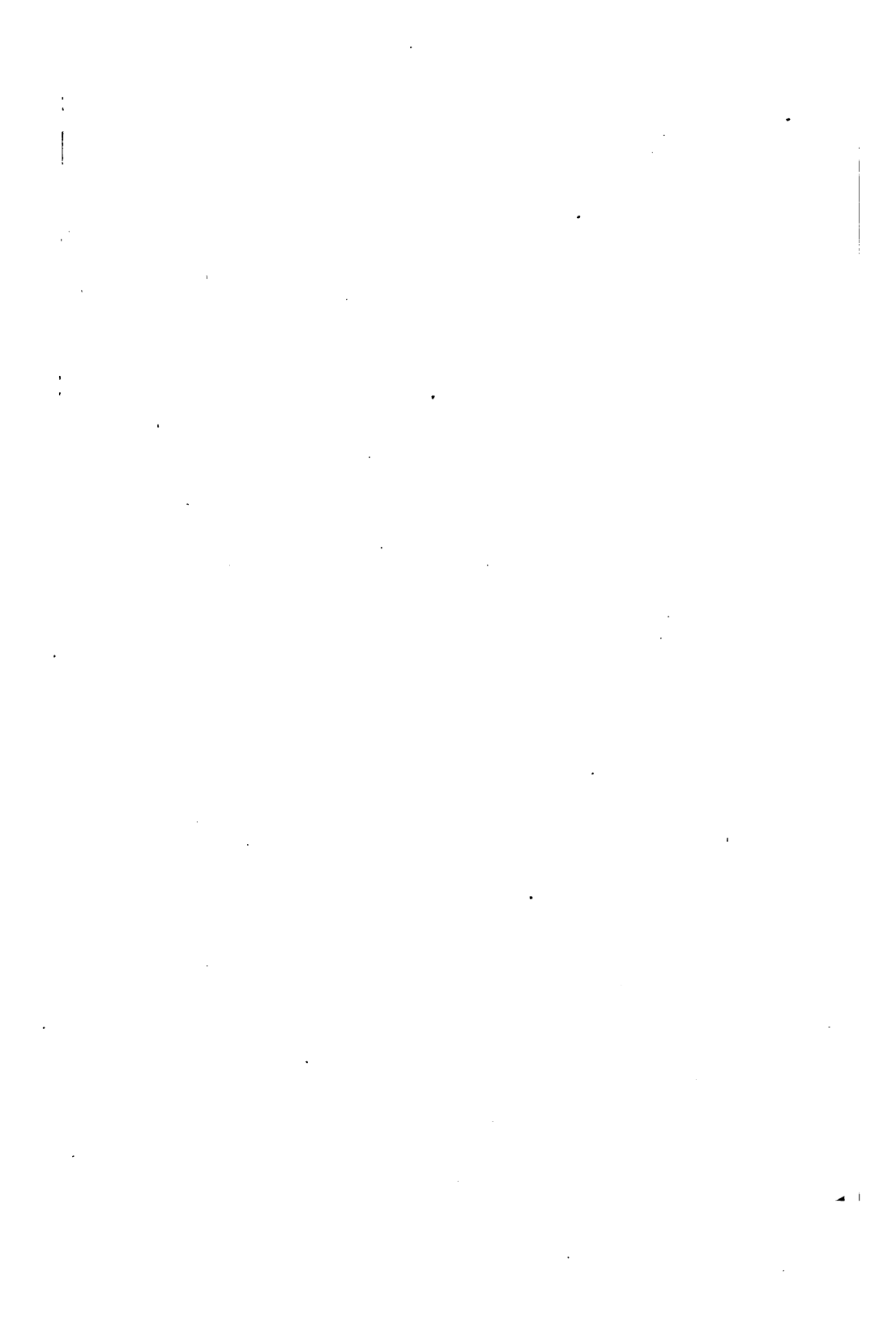
Fig. A represents four hearts pierced in the centre by a spear. The outline of the objects here delineated have been painted with red ochre, whilst the spear has been drawn with a burnt stick or piece of charcoal. I have only seen this particular sketch in one instance, where four distinct drawings of the same object, exactly below and equidistant from each other, have been made in anything but a crude manner, the outline having been carefully and very distinctly traced on the rocks, showing a degree of perfection scarcely to be anticipated from these wild inhabitants. The breadth of the hearts is about 5in. and the length about 6in. The length of the spear portion is about 3ft.

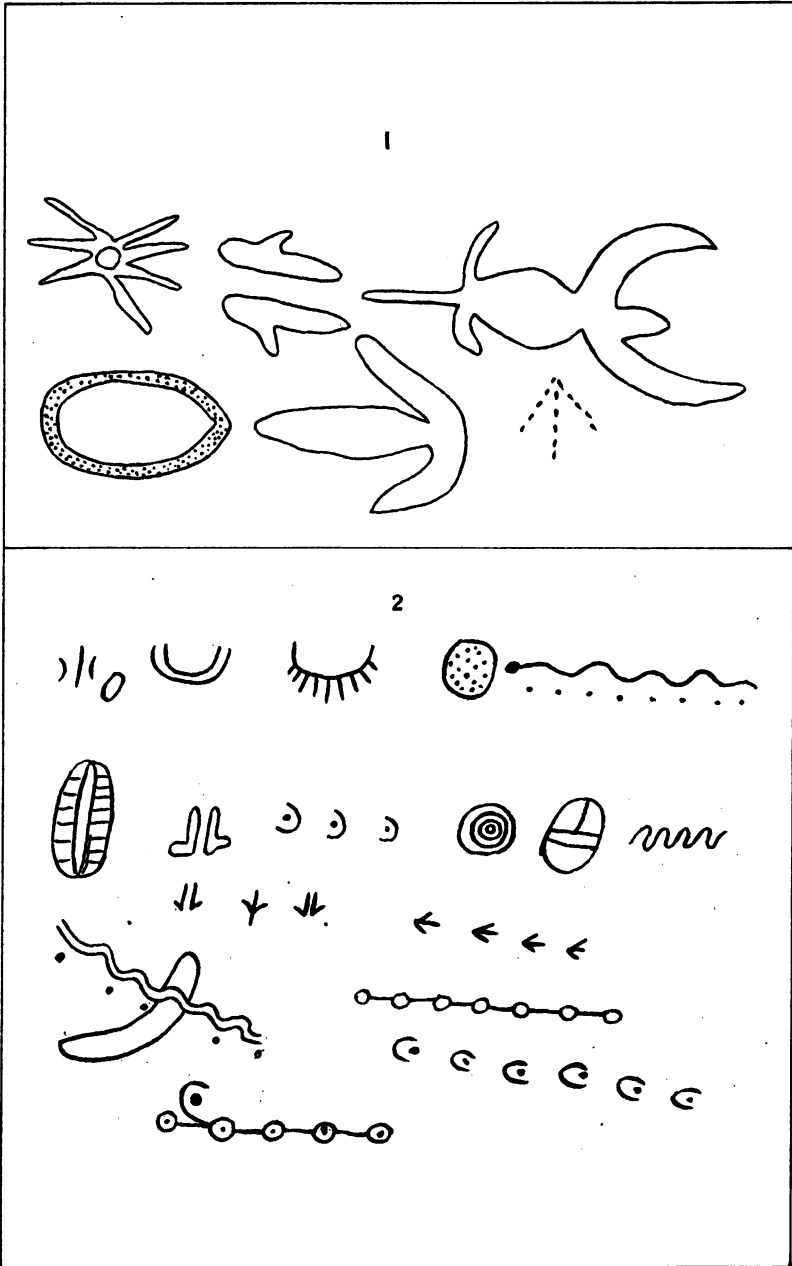
Fig. B has been drawn both with coal and red ochre. It is found in many places, and seems to be a favorite drawing of the natives; it is found depicted in several localities in the interior of Australia.

Fig. C.--This figure is made by the natives in the following manner:—Placing their extended hand against a smooth rock, after having previously moistened the same, they fill their mouths with powdered charcoal, which they then blow violently along the outline of their extended hand, thus leaving the portions of the rock covered perfectly clean, whilst the space between their fingers and elsewhere round about becomes covered with the black substance. This drawing is very common, of which several specimens may be seen near the Sandover river.

The examples of art here shown are most interesting. The hearts are thoroughly typical in form, and I have not seen or heard of any other paintings of this kind, except on the Hugh and the Finke rivers, by Stuart, and at Ayers' Rock, by Gosse; and also further south of the Finke, where McDouall Stuart found two trees on which were cut two hearts and also spear-heads, as well as other small marks which he does not describe. Two hearts were found by Gosse in a cave at Ayers' Rock and not very far west of the Finke. These hearts were joined. The caves in this rock are of considerable dimensions and contain numerous paintings on the granite walls—drawn not in colors, but in white. In the next four sketches, where colors are used, they are peculiarly bright, and the lines well defined, the coloring materials used being ochres mixed with grease. The same rule or law holds good with these particular drawings as with others of a less characteristic nature in the eastern portions of the Macdonnell







Ranges. Certain females of the tribe are not permitted to approach near them, or even to look at them, under pain of severe penalties.

There were also two further representations not here illustrated, comprising snakes, lizards, the rising sun, a branch of acacia, and phallic marks; and also two human figures, the one standing with uplifted hands, the mouth being absent, which is usually the case in drawings of the human figure by the native artist. One figure is that of a man evidently killed by a blow from the abnormally large tomahawk. There is the usual snake, branches of an acacia, marks of an emu's feet, a wheel-like mark in the upper left-hand corner, a representation of a grave, the broad arrow or spear-heads and phallic marks, besides an ornament on the right which I have not seen before.

Plate No. 11 exhibits two snakes, the young moon, a tomahawk, spear-heads, a shield pierced by a barbed spear, and other fanciful marks of no great importance.

Some further native drawings of interest are to be seen on the walls of a large cave under Mount Olga, one of these being two distinct parallel lines about 4ft. long with spots between them; and Gregory, the explorer, saw, on a creek joining the Victoria river from the south-west, lat. $16^{\circ} 55'$ S., several native paintings on the sandstone rocks, consisting of outlines of fish and snakes, some in red ochre and others in white pipeclay. He also found that several of the trees near a pool of beautiful water had been barked, and the wood painted yellow, with brown spots at regular intervals and vertical wavy lines in black.*

Not far from Glen Edith, lat. $23^{\circ} 60'$ S., long. 131° E., E. Giles discovered a cave ornamented with figures of snakes and devices for shields; also an hieroglyph of a striking character, consisting of two Roman numerals, a V and an I. Placed together they represent the figure VI.; they were both painted in red.† In this case were many figures of snakes.

On the Limmen Bight river, at Leichardt's Crossing, are four remarkable flat-topped cones of sandstone, appearing like a plateau on which are several interesting paintings. These hills are called the "Four Archers," after four brothers from whom Leichardt in his first journey had received much help and assistance.

At the Oulina woolshed are some remarkable rocks, with drawings outlined in red of lizards, feet of kangaroos and emus; also, apparently a starfish. (See Fig. 1, Plate No. 12.)

On the west of the River Finke, in the sandstone caves at Arcoillina, are outlines of kangaroo feet, shields, snakes, phallic

* A. G. Gregory, *Explorations in 1856*.

+ *Australia Twice Traversed*, Vol. I.

marks, and apparently a boomerang thrown at the snake; with spear-heads, and, as some suppose, the tracks of emu feet. (See Fig. 2, Plate No. 12.)

Mr. Norman Taylor, when exploring on the Cape York Peninsula, found a flat wall of rock on which numerous figures were drawn in outline with red ochre and filled in with white. The figure of a man was shown in these colors, spotted with yellow. On the hardened earth flats at the back of a beach were some regularly drawn turtles cut out in outline. In the Victoria Valley, in the colony of Victoria, there is, I have been often told, a cave, the roof and walls of which are covered with native paintings in colors. The roof is described as being very high and quite out of reach of anyone standing on the floor. I have never yet been able to obtain a detailed description of them from those who have seen the paintings, or even a statement of the colors used, but all unite in saying they are very artistic and wonderful.

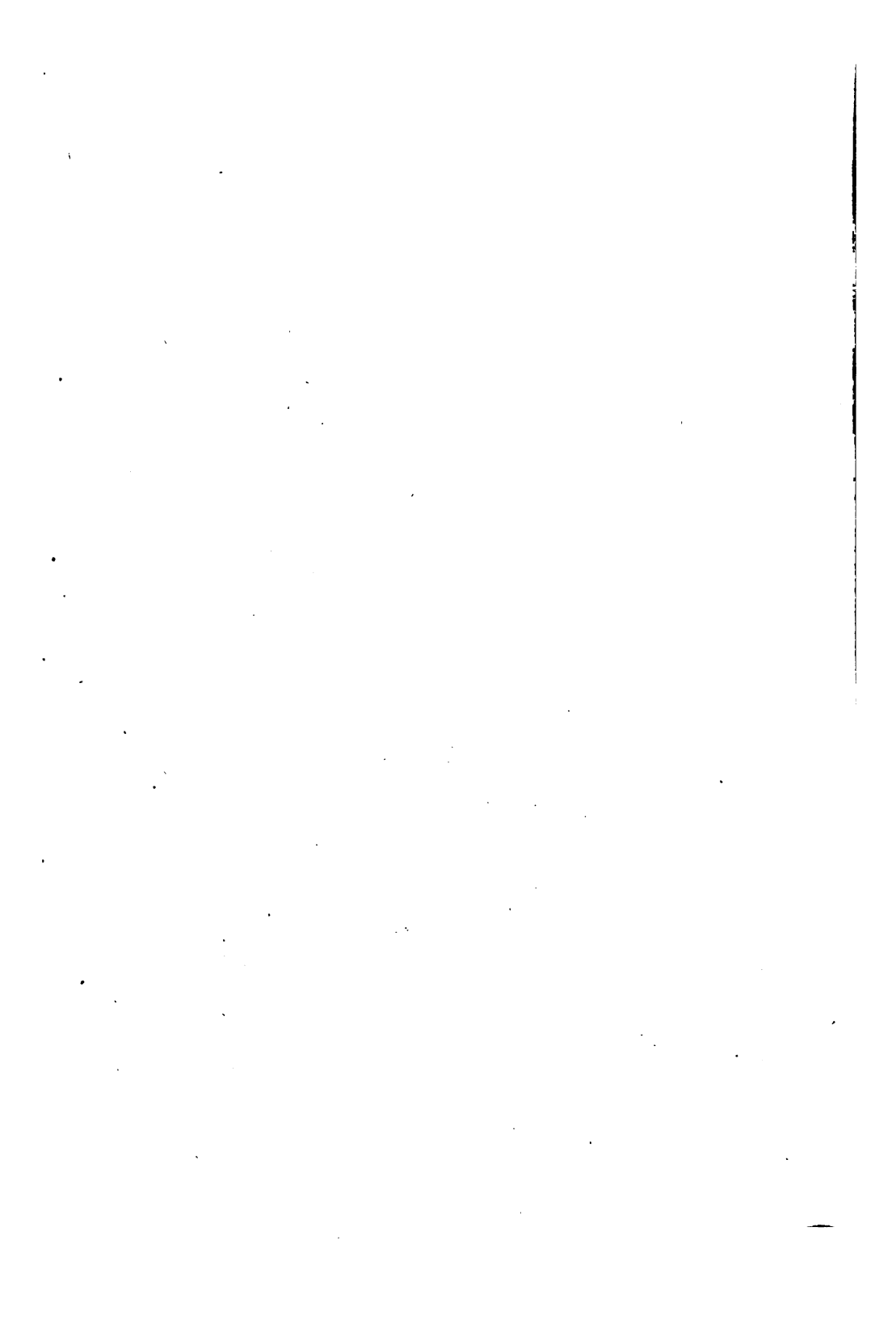
Breton states that he saw at Port Macquarie a remarkable ceremony called "Kabarra," for which the summit of a low hill was chosen, the surface being cleared of grass, &c., and the bark of the trees that are near being carved into representations of different animals.

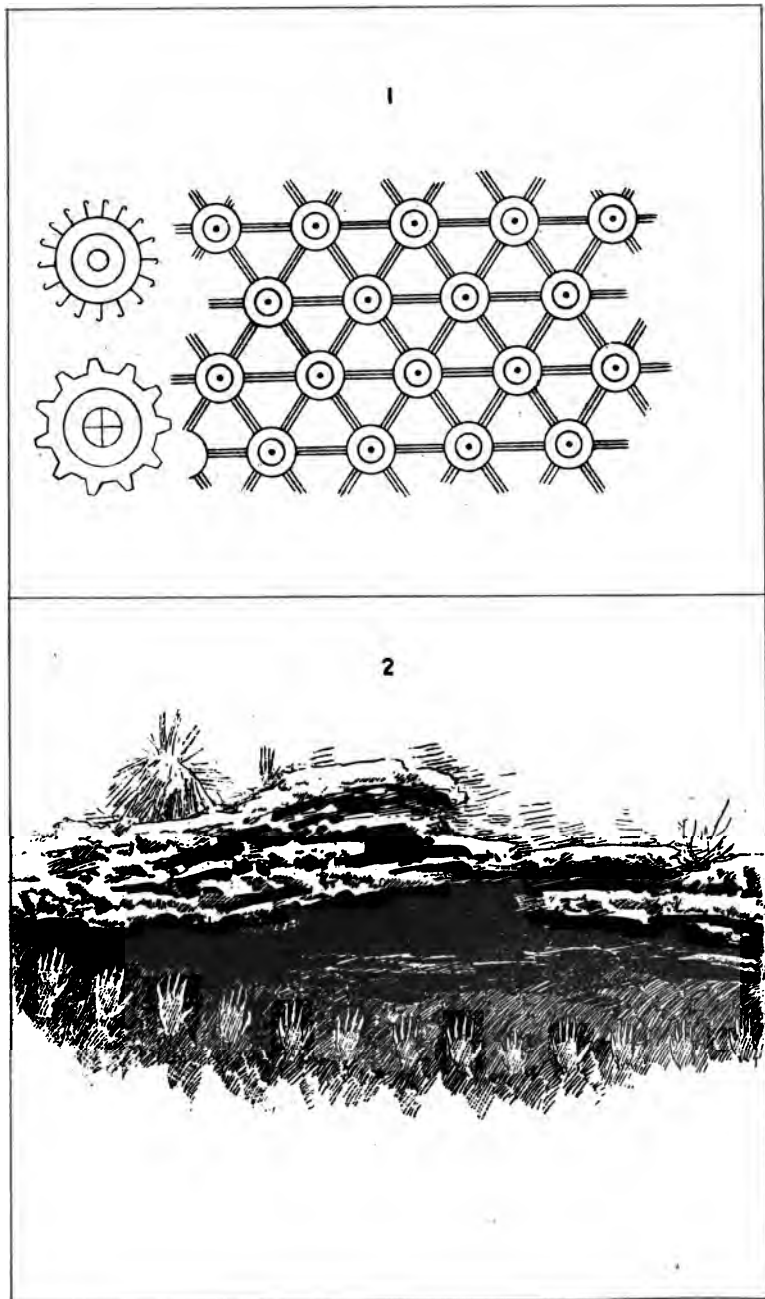
About six miles from the Alice Springs Telegraph Station, on the Adelaide and Port Darwin line, is a large cave covered with paintings made by the aborigines. well-defined parallel lines intersected with footprints of the emu, kangaroo rat, birds, the outline of an iguana and hands of man, all well sketched and perfect. The parallel lines are of deep red and yellow colors with white borders; the footprints of light-red, lemon yellow, and black; the outlines of the animals and hands are of red, yellow, white, and black, and (considering it was done by blacks) wonderfully displayed and blended. All the paintings are in good preservation, and evidently touched up occasionally, as they look quite fresh.* The men and women of the Dieyerie tribe are very good at sketching and coloring. Their drawings of animals, such as dogs, emus, rats, kangaroos, snakes, fishes, and birds, are made on the sand, pieces of bark, and on stones.

A writer† in the *Register* of May 20th, 1891, describes the incidents of a journey from Port Darwin to Adelaide, and he says:—"Leaving Alice Springs we pass either through the Heavitree or the Emily Gap, and travel in a south-easterly direction to strike a gap in the Ooraminna Range, some twenty miles from the MacDonnell. After striking the gap we turn a little to our right, and about five or six miles of fearfully hard travelling over rough

* Gason's letters.

† Overlander.





ranges, through dense mulga and fields of porcupine, we strike the Ooraminna Rockhole, one of the grandest rockholes on the overland journey. I have camped here many a time. It is a fearfully weird desolate-looking place, and very few would ever think of finding water judging from the surroundings. Every hill around has a dry, arid, barren appearance, and but for this waterhole that is what it would be. The ranges are composed of rock of a peculiar formation, being a mixture of quartz, sandstone, and granite. They present a spotted appearance, and some of them put one in mind of old ruins, such as castles, fortresses, towers, &c., being so peculiarly heaped up. This waterhole is in a small rivulet running down between the ranges, and where the hole is situated there is a kind of waterfall, with a fall of about 15ft. The hole when I have seen it has been always nearly full, and trying to bottom it with a 12ft. stick failed to do so. The hole is almost round and about 25ft. in diameter. Above the high water-mark there are several caves at the back just under where the water falls, which have been profusely illustrated by the natives. The principal drawings comprise sketches of emus' feet, human hands and feet, lizards, snakes, &c., and scores of other drawings that I could make neither head nor tail of. The drawings look quite fresh, but I never saw a native once in this locality."

Referring again to the Ooraminna Rockhole. The Government Geologist of South Australia says it is a splendid waterhole much frequented by teamsters and travellers to the stations located alongside the Overland Telegraph line to Europe. Close to, and in fact abutting on the rockhole itself, are several caves which have been picturesquely adorned by the natives with paintings of emus' feet, lizards, snakes, human hands, and numerous other drawings, which indicate great artistic ability.

In one of the caves the face of one side has been diapered with the design here shown. The whole of these drawings are done in red on a white ground, and it looks as if the artist had first prepared his groundwork in white and then drawn his diaper work in red over the whole. The star or sun like ornaments are about 1ft. each in diameter. (Plate 13, Fig. 1.)

The diaper work covers a wall about 12ft. high by 16ft. wide. The cave containing these peculiar paintings is situated behind the waterfall, and access can be obtained to it behind the curtain of water. The place must have been a great rendezvous of the natives for ages past, as the fire-hearths and *debris* of many feasts lie scattered around.

Mr. O'Donnell, writing to me in 1886, says that he had found in the caves in the granite ranges in the Kimberley country in

Western Australia drawings by the natives similar to those found by Sir George Grey on the Glenelg river in 1836.

The Government Geologist also informed me that he saw in some caves near York, in Western Australia, several native paintings; and many besides in the Musgrave Ranges in South Australia.

The existence of the symbolic hand on rocks and in caves in all parts of the continent, known as "The Red Hand," has attracted great attention from the discoverers and others to whom its existence has been made known. It is certainly one of the most interesting paintings of the aborigines, and the natives—when questioned on the subject—either declare their entire ignorance of the reason for its frequent representation or shake their heads and in a mysterious manner refuse to explain or to satisfy the questioner. It will be observed that the hand is always in an uplifted position, never horizontal or having a downward tendency. At a place near Port Jackson (Sydney Harbor) on the rocks at Kangaroo Point is a whole series of these hands, one following the other in regular order, although varying in size. (See Fig. 2, Plate 13.) They are depicted on the face of the rock at least 30ft. above the present surface, and in an almost inaccessible place. The pigment used must have been of an enduring character, as the color (red) is still clearly visible on the hands near the centre of the series, but is somewhat fainter, although still distinguishable, towards the ends. The rock has an eastern aspect and the rising sun thus illumines them by his earliest rays as he lifts himself above the broad waters of the Pacific Ocean. The number of hands depicted on this cavernous rock was in all thirteen. The red hand has been met with in all parts of the earth—in Egypt, the Holy Land, Arabia, India, Babylonia, Phœnicia, and amongst the ruins of Mexico, and Central America. It is supposed to record some mysterious ceremony, or to symbolise some ancient deity—a symbol which indeed exists amongst the Mayas and Guiches of Central America.*

Hard by these associated hands is the representation of one large hand, the wrist and a portion of the arm in white pigment, and on the inner or thumb side are depicted two rods or magic wands. There is another high cliff at Greenwich, on the Paramatta river, which at one time had impressed on it seven of these hands; but the most prolific place for them is at Cox's Creek, near the head of the Cudgegong river.† On the Hawkesbury and Hunter rivers, as in other places, these impressions are often shown in relief on the rock face, as the pigment used in their formation—whether it be

* A. L. Plongeon, New York, 1886. † Aborigines of Australia, J. F. Mann.



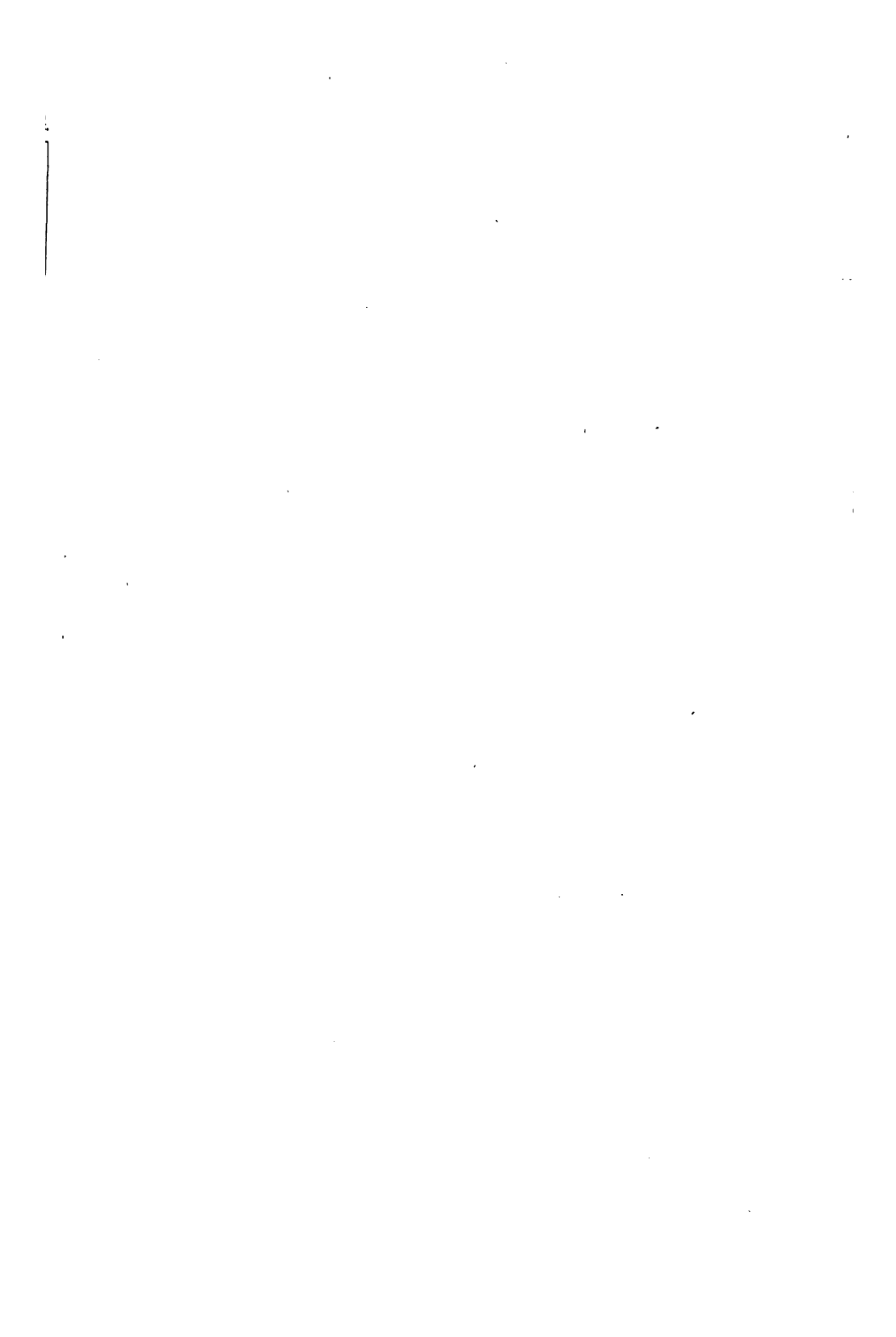
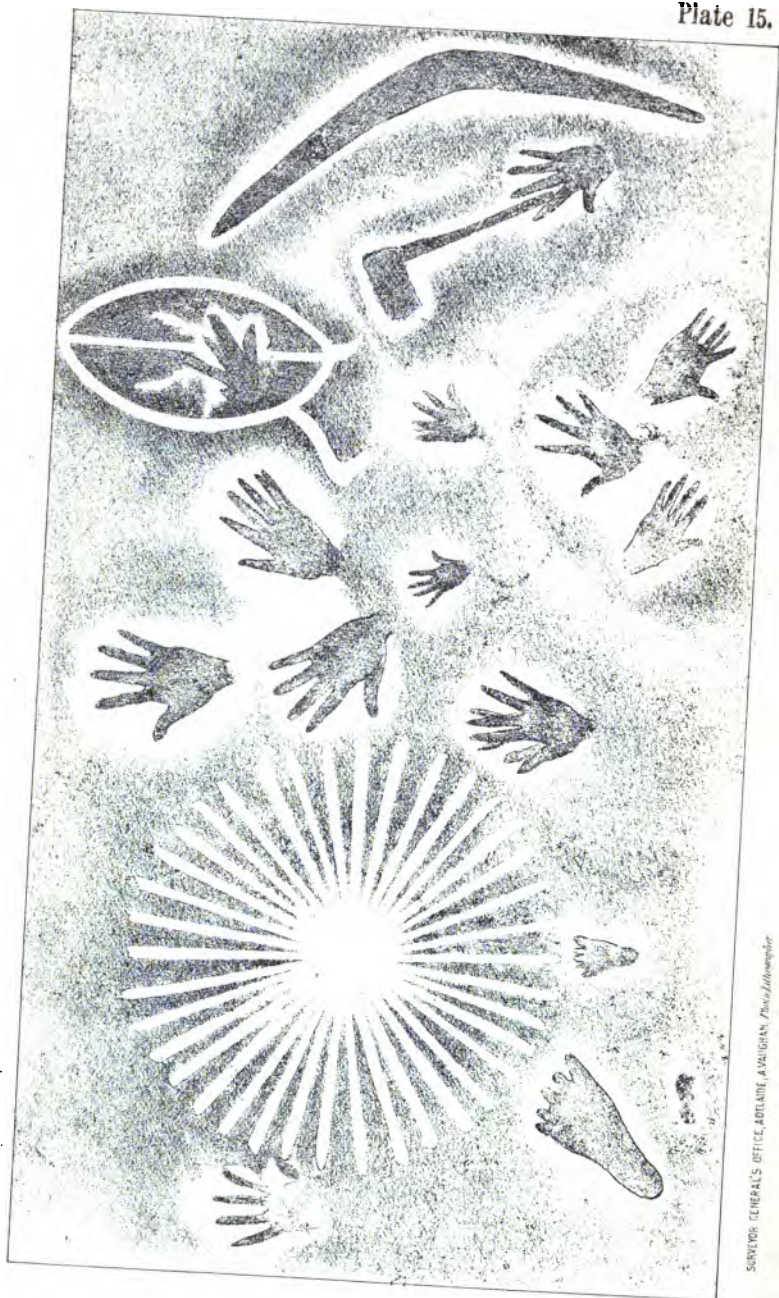


Plate 15.



SURVIVOR GENERAL'S OFFICE, ADLANTHE, JAWIGHAN, Phrae, Siam

blood, as some suppose, or ochre mixed with fat and resinous gum—has preserved the stone from the action of the atmosphere. There can be no question that there is a common origin to all these impressions of the red hand; but whether they were depicted to record some religious or other ceremony in the far back ages I am unable to determine.

ABORIGINAL DRAWINGS, WOLLOMBI ROCK SHELTERS.

In the Hunter River district of New South Wales, near Wollombi, are some cave shelters which give evidence of having been at some time tenanted by the aborigines. One of these caves is 60ft. long, in which are several markings on the walls, consisting of representations of twelve (nearly all left) hands, outlined with and surrounded by white on the dark background of the rock. (See Plate 14.) One of the markings has been cut out and taken away, and another has been worked round, probably with the same intention. There are several other caves in the vicinity of Wollombi, and also about twenty miles away, said to be ornamented with drawings of native animals and birds.*

The group to the left in Plate 15 represents probably a drawing of the sun, surrounded by hands and feet, the right hand being mainly depicted. One, nearly in the middle line, shows how the operation had been interrupted, and the hand replaced in a slightly different position.

Upper right hand figure represents a shield with an imperfect hand placed across the middle.

Close to this is a well-formed boomerang; and also a hand, probably intended to be holding a tomahawk.

Beneath is a group of hands, possibly female.

The Rev. Mr. Woods in his "History of the Discovery and Exploration of Australia," Vol. II., says, speaking of Austin, the explorer:—"On the 21st of September they lost two horses from exhaustion and thirst, but on the same day, in lat. $27^{\circ} 43'$, long. 180° , found a spring near a cave in a quartzite cliff. This cave had singular carvings in it. There were representations of seven left hands of the ordinary size, with one large right hand above. Mr. E. Giles saw at Monaro Mountain, east of the River Darling, similar ornamentations in the form of painted hands; and also similar figurings on the Murray, Murrumbidgee, and Edwards rivers. The natives of these places depict on their shields and opossum rugs representations of animals, birds, fish, and emus. Mr. E. Giles in his journeys, in 1872, to the

* Record of Geol. Survey, New South Wales, Vol. II.

west of the Macdonnell Ranges found several caves, the walls of which the natives had decorated "with strange devices of snakes, principally white; some of the hands being done in black, and others in red." One device represented a large snake. There is a hole in the rock, "and the snake is painted on the wall, and the spectator is to suppose its head as just inside the hole. The body of the reptile is curled round and round from the tail, though the breadth of the body of the creature is out of all proportion as regards length, being 7in. or 8in. thick and only 2ft. or 3ft. long."

In the sandstone caves on the Natal Downs the natives have made drawings of emus, kangaroos, and imprints of the red hand; these latter are also found on the almost inaccessible faces of the white sandstone cliffs, and on the Cape river, where they are called *beera*, a word which means *hand*.

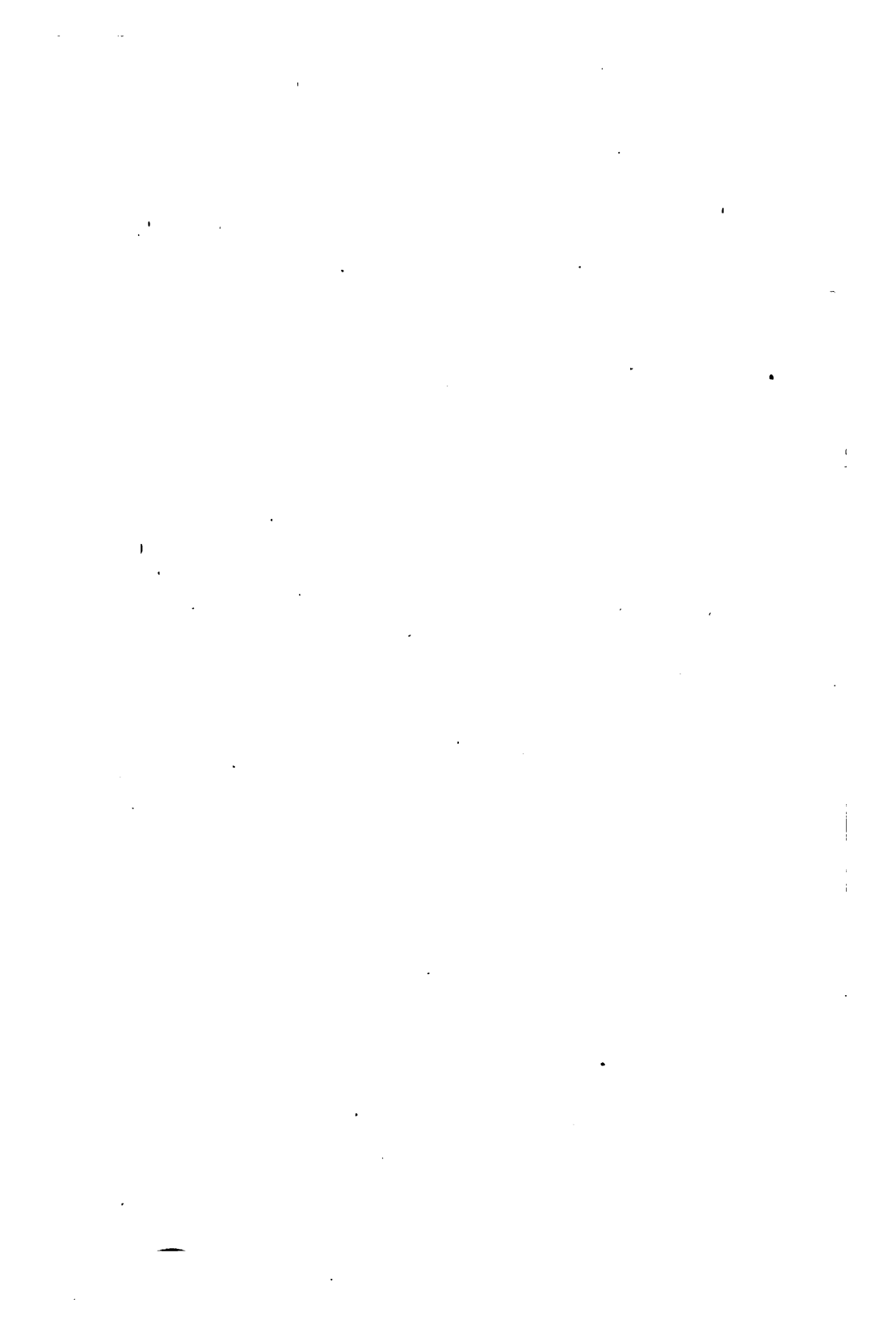
The stones used by the natives for grinding the ochre are thin, flat, and of an oval shape, the lower one being quite smooth, measuring $5\frac{1}{2}$ in. long, $4\frac{1}{4}$ in. broad, and $\frac{1}{4}$ in. in thickness. As the ochre is ground it is placed inside of a small nut previously hollowed out; this is pierced at the side with small holes, through which the powder is neatly laid on to the human body. The brushes used in painting are made from the hair of the wild dog's tail, inserted in hollow sticks or in hollow bones—generally the leg or wing bones of the wild turkey. The length of the bone is usually about 10in. and the thickness $\frac{1}{4}$ in.

It is well known that the aborigines had a system of picture-writing and of intelligently conveying to other natives the meaning of messages by means of cuts and marks. Tribal distinctions were also defined in the cutting or tattooing of some particular part of the human frame. In some of these hieroglyphics the untaught native has produced exactly the same lines, figures, and ornamentation that laid the basis of the artistic designs of the great architects of Europe, Africa, Asia, and America, such forms being in use there at the present day and adopted universally.

Throughout Australia the aborigines have conventional forms or symbols for trees, lakes, and watercourses: in some instances so simple as to be fully intelligible to all the tribes who look upon them. Mr. Brough Smyth, in his "Aborigines of Victoria," says that "he received from the Honorable T. J. Sumner a sheet of bark on which was depicted various scenes in the life of an aboriginal. (Plate 16.)

"It came from Lake Tyrell, from a hut constructed by a native. He had ornamented the sheets of bark composing his hut very elaborately, and one piece was brought to Melbourne.





"The native artist was a wild black who had observed the customs of the whites, but had received no instruction from them, except such as an intelligent man would derive from looking at their work. He cannot, therefore, be strictly regarded as an uneducated native.

"The bark was smoked on the inside by placing it over a fire of twigs and leaves until the surface was blackened but not charred, when the artist drew the figures with the nail of his thumb, consisting of forms of animals and inanimate objects similar in all respects to carvings of like designs graven both on stone (in caves and on rocks) and on their wooden weapons—shields and boomerangs.

"Beginning at the top," Mr. Smyth says, "we see what appears to be clouds on the horizon. A snake is seen gliding towards the further edge of the plain, a part of the body being out of sight.

"There are a few trees on the plain, and these are placed seemingly for the purpose of illustrating events. A pigeon is perched on the top of a tree; there are two kangaroos exchanging signals; a native companion walking and another feeding; an emu at rest, but with the head turned watchfully towards the rear; a snake is coiled up; and wild turkeys are walking, feeding, or pluming themselves. There is also a gum tree admirably depicted, with apparently a cherry tree quite near it (commonly seen in the bush where the cherry tree seems to seek the shelter of a gum), and a native is climbing the gum tree tomahawk in hand. Two men are seen on the right of the picture; one is seated with a pipe in his mouth, the other, gun in hand, is regarding attentively the game in the distance; their clubs, spears, shields, and a bag and tomahawk are lying on the ground.

"The following parts of the picture are divided from the above by encircling lines:—Towards the left, in a circle, are two figures of natives and a snake: one native is pointing towards the snake with his right hand, whilst in his left hand he holds a stone tomahawk. The other native has a bag in his right hand and a tomahawk uplifted in his left. (The artist has evidently made a mistake here, as natives are very rarely left-handed. He no doubt believed when he drew the figures that he had placed the implements in the right hand of each, not in the left.) Towards the right, within the next encircling line, there is an inner line, within which a native is seen in a canoe on a stream; a spear is in his right hand ready to strike any fish he may see, and a stick in his left hand with which he propels the canoe. A duck is swimming in front of him.

"Lower down, towards the right, is a crateriform lake exactly resembling those in the Western District of Victoria. It is fringed with small trees, true to nature, and the fences of the squatter are

depicted. A stream having a connection with the lake, also true to nature, is well drawn. In the lower part of the picture are shown another crateriform lake and two swans upon it, with an outlet or a feeder and a squatter's house. The upper side of the lake is fringed with small trees, and an old dead gum on the right is rigidly true in execution.

"The way in which the motion of the water is conveyed is excellent; it is nearly at rest in the lake, and it is running in the stream. The squatter's house is seemingly built of stone and the chimney of brick.

"At the back of the house, and at a distance from it, some natives are dancing and others apparently engaged in a mystic ceremony. The figures in motion, those at rest, the women beating their opossum skins, the weapons, whether held in the hands of the dancers or piled on one side, are clearly shown."*

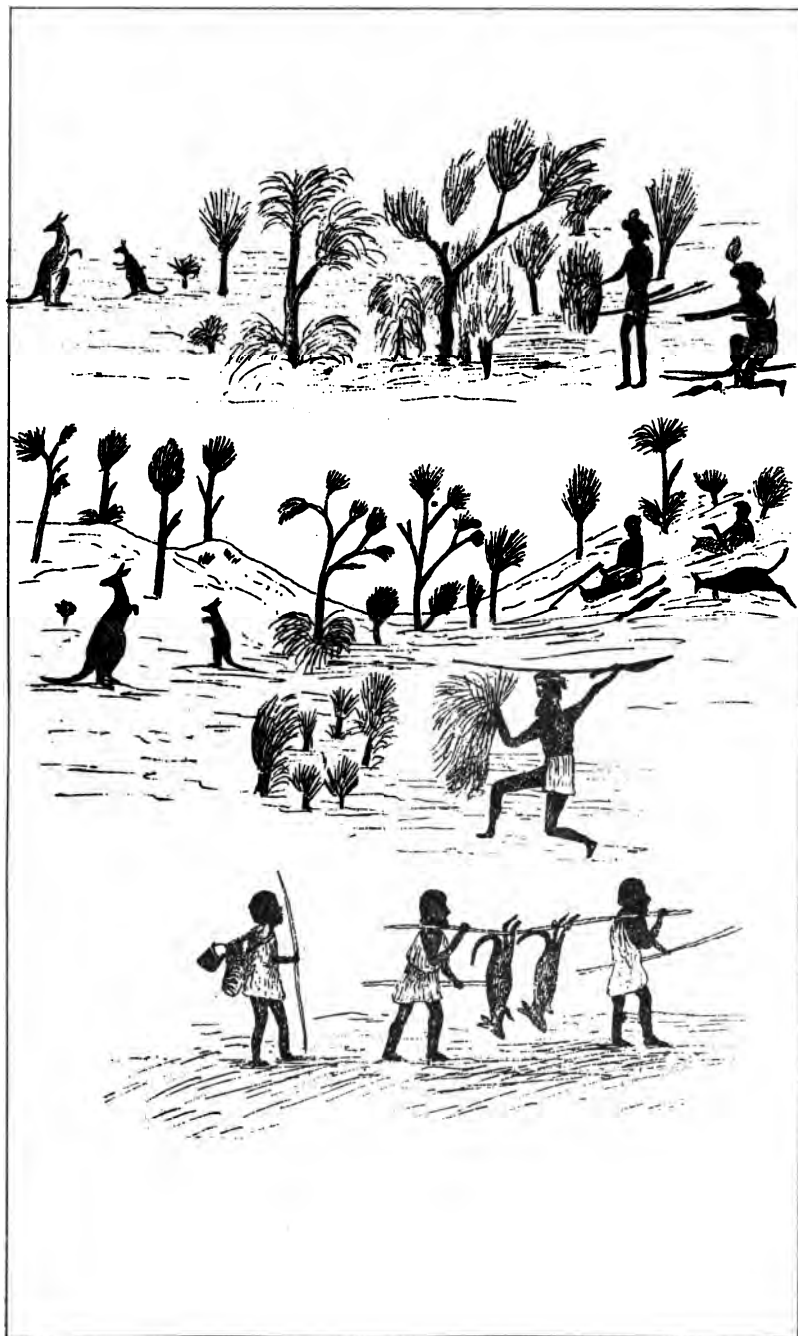
Mr. Hodgkinson, in his work entitled "Australia, from Port Macquarie to Moreton Bay," in 1845, says that he had with him a boy, belonging to the Manning River tribe, who drew with a piece of chalk human heads and figures, kangaroos, &c., with a firm well-defined outline, which few English lads of his age could have done better unless they had had lessons in drawing.

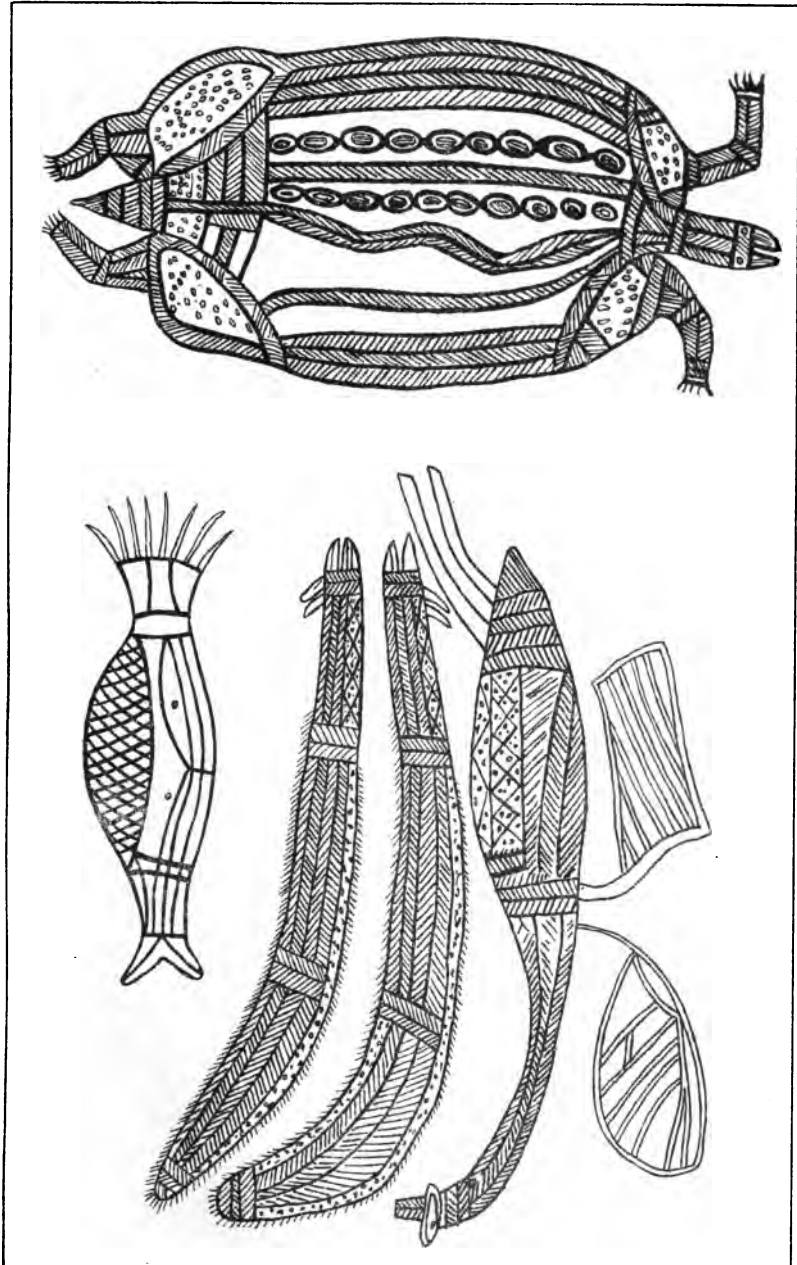
There was a clever group of native animals drawn by an untaught native, one Yertabrida Solomon, an aboriginal of the Coorong in 1876. The picture is in possession of the family of the late Rev. George Taplin, missionary to the blacks at Point McLeay on Lake Albert, and shows such powers of observation and artistic knowledge as to compel our admiration.

Another drawing by the same native artist, made also in 1876, is in possession of the same family (Plate 17), representing hunting parties after game. The first is a scene in the scrub, where two kangaroos are just found; one of the hunters holds a bush or branch of a tree before him that the game may not be alarmed at his approach before the deadly spear is thrown. The second is a somewhat similar party, who are seen approaching their prey, which is feeding on the sparsely-timbered sandhills on the seacoast, the hunter also shielding himself from observation by the animals by holding a bush in his hand. The third scene shows the return to camp of the hunters carrying their large game, whilst another follows behind with the bag and a basket slung over his shoulder.

A good photograph was taken from some sheets of bark, on which were drawn representations of turtles, fish, and a wild goose in the act of flying. (See Plate 18.)

* B. Smyth's *Aborigines*, Vol. I., p. 286-7.





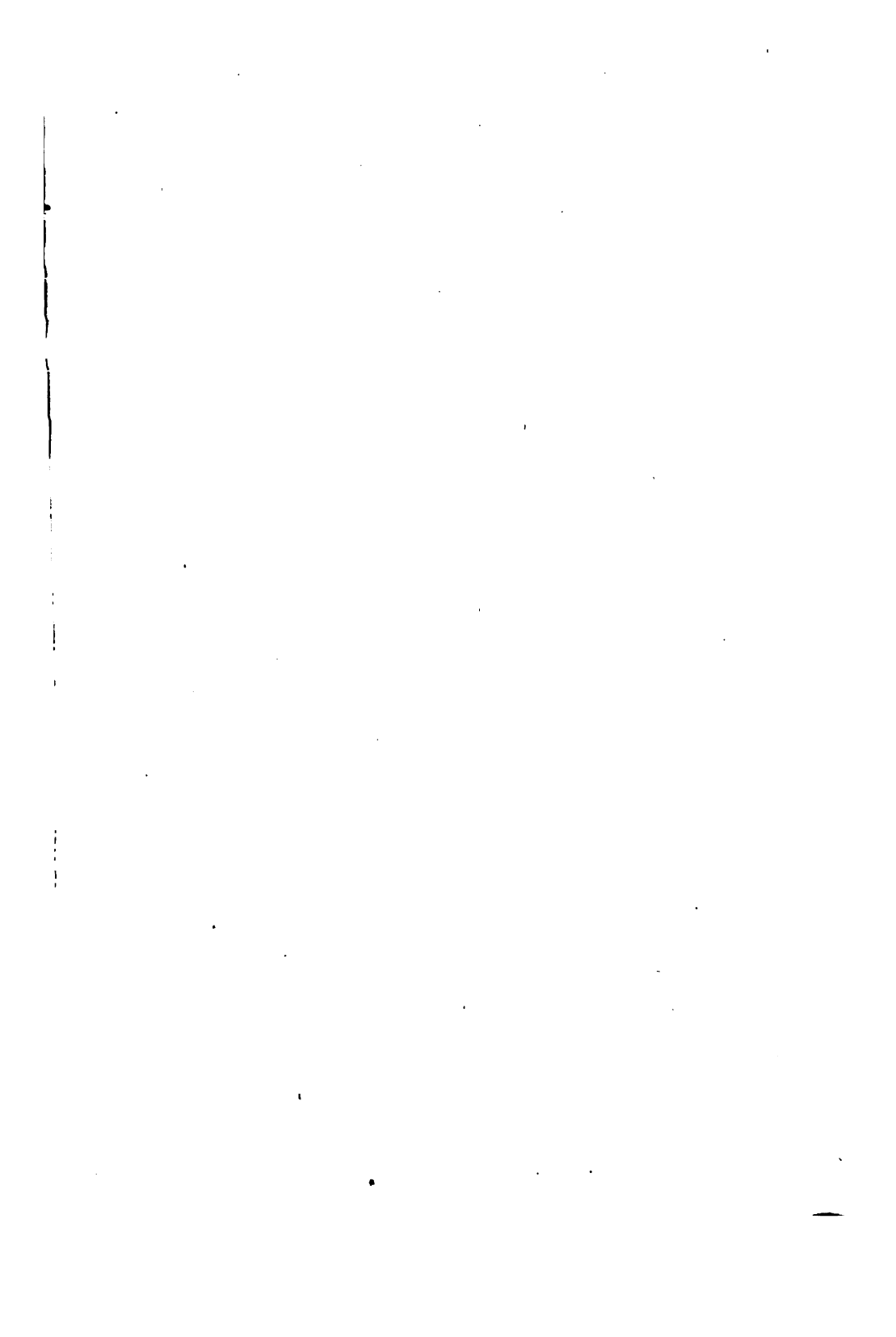


Plate 19.

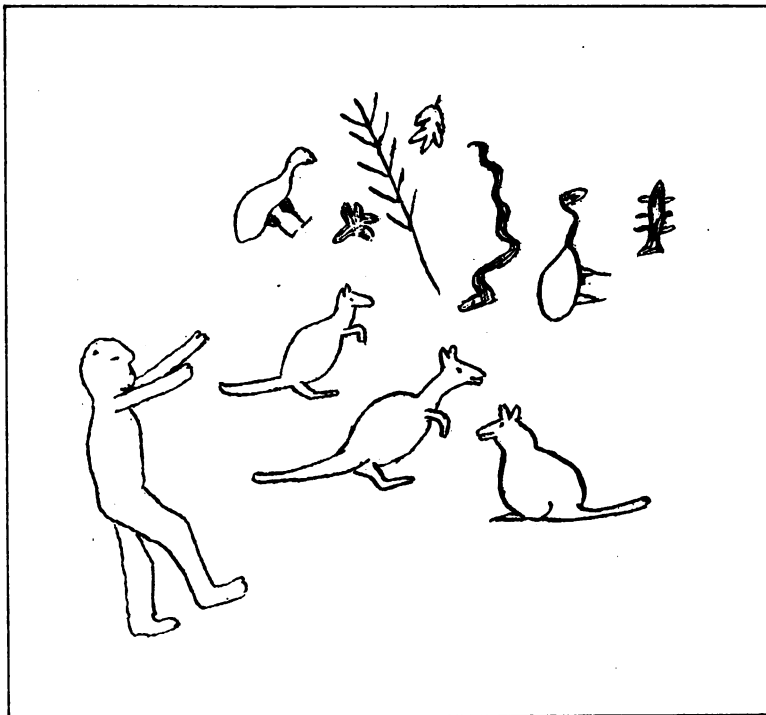
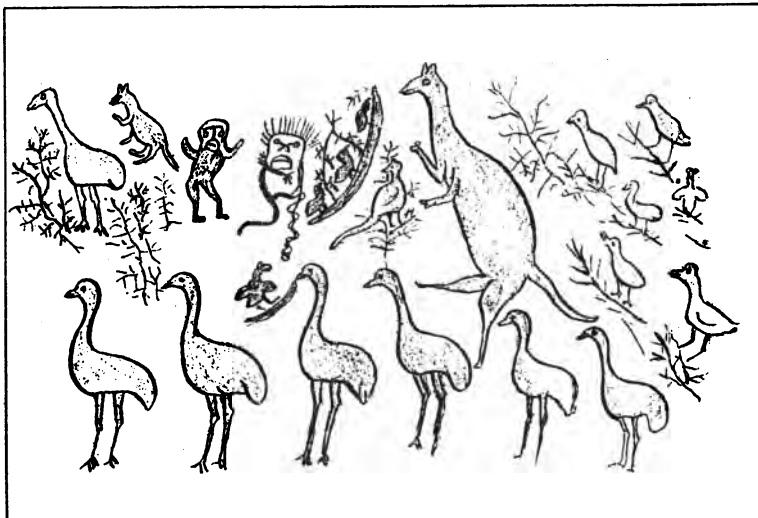


Plate 20.



These were brought from Field's Island, in the South Alligator river (situate about eighty miles from its mouth), by Captain Carrington, and exhibited in the rooms of the South Australian Branch of the Royal Geographical Society of Australia in Adelaide in 1887.

The dimensions of the original drawings on the sheets of bark are as follows:—That of the turtle is 2ft. 5in. in length and 1ft. 1½in. in width at the widest part; that of the fish with the head rays or tentacles is 1ft. 7in. in length and 8½in. in width; that of the other two fish are 2ft. 3in. in length and 3in. and 5in. in width respectively; the goose being 2ft. 6in. long, and the expanded wings 10in. long each. I have received from Mr. Zeitz, the Assistant Museum Director in Adelaide, the following description of the fish above delineated:—He says, "The two long figures belong to the fish family *Blennüdae*, of which *Zoarces viviparous*, the ellpout, guffer, or greenbone, on the English coast, is one of the best known species. The short figure, with one end forked, seems to represent a large herbivorous aquatic mammal, but the two flippers are not figured. The name of this animal is Dugong (*Halicone Australis*). A copy of a bark painting from Port Essington natives is figured in one of the volumes of the Linnean Society of New South Wales, but in that the flippers are shown."

There were some artistic pictures executed by a native prisoner in gaol in Palmerston, who passed his time in painting the walls of his cell with sketches of animal life, as seen in Plate 19. The birds (emus) and the snake and fish were done in black, the kangaroos in red, and the man in white. A branch of a tree and two leaves are also shown.

Another native prisoner also adorned the walls of his cell with drawings. Here are shown some representations of the mythical beings which, amphibious and otherwise, tend to raise the greatest dread in the aboriginal mind. (Plate 20.)

Whilst this work was being compiled a lecture was delivered before the Melbourne branch of the Royal Geographical Society of Australia by Mr. Bradshaw, a station holder on or near the Fitzroy river. He said "that whilst on the Prince Regent river, in lat. 15° 40', and long. 125° 36' he saw numerous caves and recesses in the rocks, the walls of which were adorned with native paintings, colored in red, black, brown, yellow, white, and a pale blue. Some of the human figures were life-size, the bodies and limbs very attenuated, and represented as having numerous tassel-shaped adornments appended to the hair, neck, waist, arms, and legs; but the most remarkable fact in connection with these drawings is that, wherever a profile face is shown, the features are of a most

pronounced aquiline type, quite different from those of any natives we encountered. Indeed, looking at some of the groups, one might almost think himself viewing the painted walls of an ancient Egyptian temple. These sketches seemed to be of great age, but over the surface of some of them were drawn in fresher colors smaller and more recent scenes, and rude forms of animals, such as the kangaroo, wallaby, porcupine, crocodile, &c. In one or two places we noticed alphabetical characters, somewhat similar to those seen by Sir George Grey in nearly the same latitude, but many miles westwards on the Glenelg river."

A few days after the report of this lecture I received a letter from Mr. Harry Stockdale, of the Northern Territory, who informed me that he had discovered on or near the Alligator rivers about forty caves within a radius of 100 miles, in which were numerous native drawings, hieroglyphics, and skeletons of human beings laid out in regular lines.

"These drawings and hieroglyphics are very remarkable indeed, being made in some cases on the roof and in others on the sides of the caves. They consist of animals, birds, reptiles, men, women, canoes with men in them, &c., and a great many of the drawings of the men exhibit all the features of the face, several being (apparently) representations of Europeans. The hieroglyphics resemble Greek, Egyptian, and Hebrew characters. One very remarkable figure of a man has his arms crossed over his breast and two peculiar little tufts on the crown of his head, and a necklace round his neck, the breast being covered with a device in regular straight lines, and the stomach marked with lines at regular intervals. The wall of the cave was adorned with a spiral line, and a number of hieroglyphics.

"There were quite 200 different drawings, though sometimes one cave would have seven or eight different representations more or less mixed together. About eight years ago, a little over 100 miles west of Cambridge Gulf, not far from the place where Sir George Grey made his discoveries, I found a large cave full of native drawings which I consider were still more wonderful than his and thirty or forty times more numerous."

ROCK PAINTINGS, NARDOO CREEK.

In Central Queensland, on Buckland's Tableland, is Nardoo Creek, on the bank of which is a high cliff, and on its face is a magnificently-executed picture, representing a sea of fire, out of which are stretched dusky-brown arms in hundreds in every conceivable position, the muscles knotted and the hands grasping

convulsively, some pointing a weird finger upwards, others clenched as in the agonies of death, as though a host were engulfed in a seething lake of fire. All these limbs are life size, and the whole picture is about 70ft. across. Although the hands and arms are little more than outlines, yet so faithful are these from an anatomical view that every joint is visible and apparently life-like. The proportions of the limbs indicate that they are those of blacks, and on some of the hands the fingers are bent backwards, as only little girls and aborigines can bend them. Near the bottom of this picture is represented feet, mostly men's and women's; there are, however, some that are children's.

In addition, there are representations of boomerangs, nulla-nullas, coolimans, stone tomahawks, and other implements. The groundwork is painted in pigments of red, white, blue, and yellow, giving the general effect of a mass of sulphurous fire, the figures being left in relief in the natural color of the rock. Over the top of the pictograph is a projecting ledge varying in width from 4ft. to 6ft.; the under side of this ledge is also painted. It is evidently of high antiquity, as the highest point of the picture is at least 21ft. above any standing point, and is on the smooth face of slab of rock, so that any bank or ledge of rock giving foothold must have been washed away since the picture was executed. On a close examination, judging from the peculiar granulated appearance of the groundwork and the absence of hard outline, the work appears to have been executed in splash-work, the object to be represented being held flat against the rock and the pigment blown over it in a spray. The whole surface covered by this painting is above 500 sq. ft. The natives in the neighborhood have a horror of this place, and when questioned declare they can give no information about it, saying that their old white-headed blacks know nothing about it, nor even their fathers.

On the same rock there are other curious marks, such as emus' feet, boomerangs, snakes, besides many things carved in the solid rock, with singular precision of detail. On another part are three large figures roughly drawn in red, representing a man furnished with a large broad tail; the second a nondescript monster with round body, round head, and four appendages like fins; and the third is a well-executed frog of enormous size, about 8ft. long, represented in the act of jumping. These pictures are outlined and then filled in with shade lines crossing one another and dividing the figures into small rhomboids.*

* Melbourne *Argus*, May 16th, 1891.

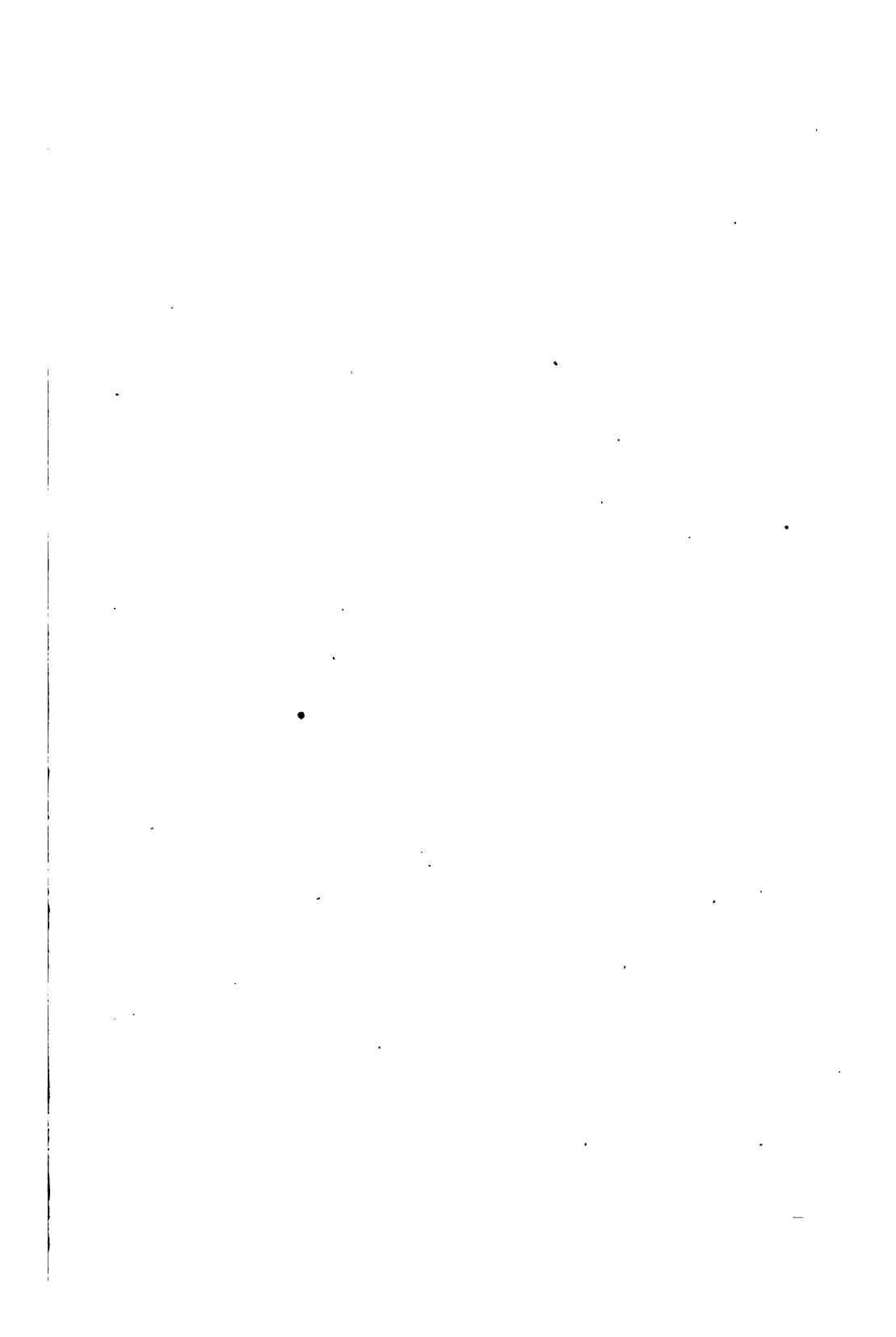
CHAPTER III.

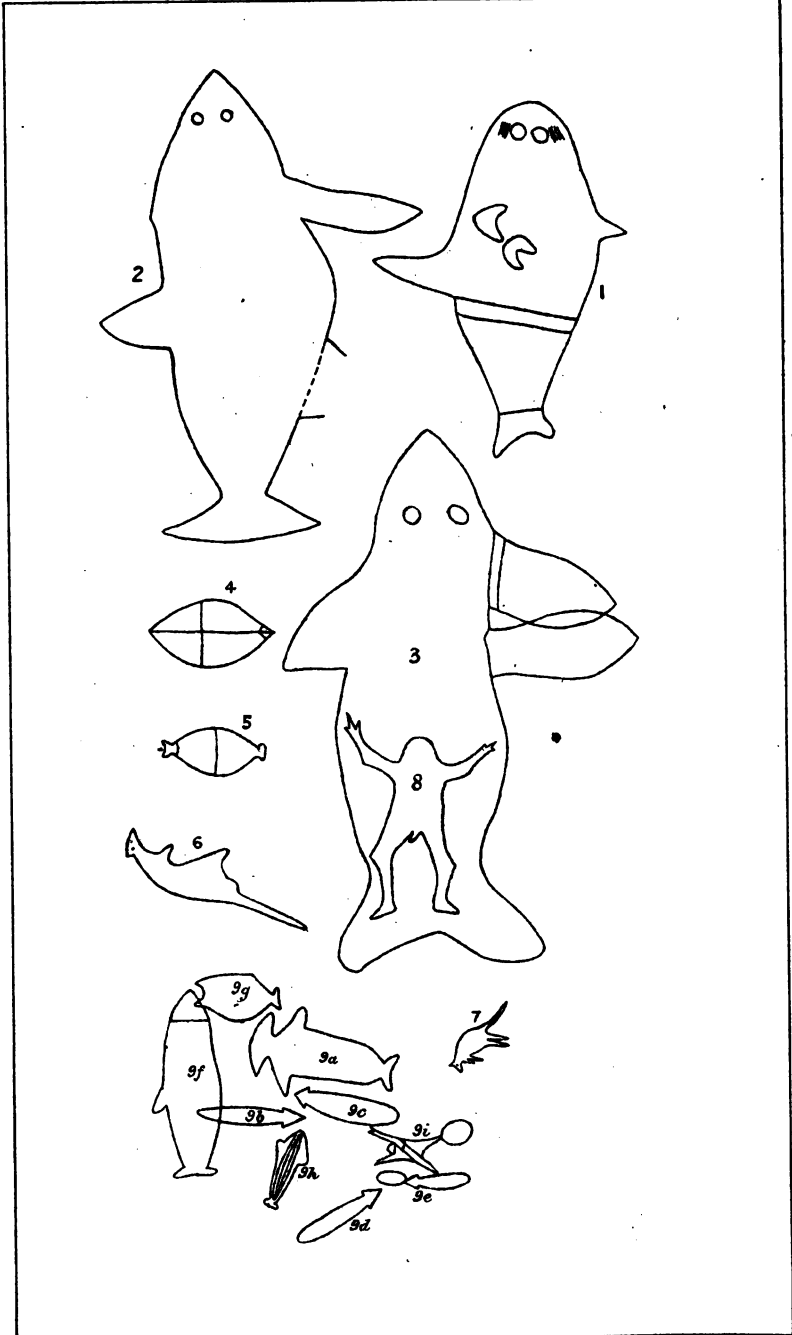
SCULPTURE AND CARVINGS.

I am not conversant either with information or records relating to any artistic efforts of the Australian aborigines prior to the year 1788, when the colony of New South Wales was founded. The first historian who so treats of them is John Stockdale, who records in the month of April, 1788, that the natives of New South Wales, though in so rude and uncivilised a state as to have made no effort in the direction of clothing, even when evidently suffering from cold and wet, are not without notions of sculpture. In all the excursions of Governor Phillip, and in the neighborhood of Botany Bay and Port Jackson, the figures of animals, of shields, and weapons, and even of men, have been found carved upon the rocks, roughly indeed, but sufficiently well to ascertain very fully what was the object intended. Fish were often represented, and in one place the form of a large lizard was sketched out with tolerable accuracy. On one of the hilltops the figure of a man, in the attitude they usually take when beginning to dance, was executed in a superior style. That the arts of imitation and amusement should thus in any degree precede those of necessity seems an exception to the rules generally laid down for the progress of invention. It may, however, have been considered by the natives that the climate is never so severe as to make the provision of covering or shelter a matter of absolute necessity. Had these men been exposed to a colder atmosphere they would doubtless, have had clothes and houses before they attempted to become sculptors.

In a journal by John White, in the year 1788, he says :—" His Excellency Governor Phillip, attended by Lieutenant Ball of the navy, Lieutenant George Johnston of the marines, the Judge Advocate, John White, Esq., Surgeon-General to the settlement, three soldiers, and two seamen landed in Manly Cove, on the north side of the entrance into Port Jackson harbor, in order to trace to its source a river which had been discovered a few days before.

"A mile or two to the northward at the end of this we fell in with a small saltwater lagoon, on which we found nine birds swimming that most perfectly resembled the *rara avis* of the





ancients—a black swan. We rounded this lagoon and proceeded four or five miles westward, along the banks of a small freshwater river, which emptied itself into it, and had for its source only a swamp or boggy ground. We pursued our route westward, proceeding many miles inland, without being able to trace by a single vestige that the natives had been recently in those parts. We saw, however, some proofs of their ingenuity in various figures cut on the smooth surface of some large stones. They consisted chiefly of representations of themselves in different attitudes, of their canoes, of several sorts of fish and animals; and, considering the rudeness of the instruments with which the figures must have been executed, they seemed to exhibit tolerably strong likenesses. On the stones, where the natives had been thus exercising their abilities in sculpture were several weather-beaten shells. The country all round this place was rather high and rocky, and the soil arid, parched, and inhospitable.”

Captain Tench also bears testimony to the delineations of the figures of men and birds cut on these same rocks, and says:—“On a large flat sandstone rock, about half a mile north of the spit at Middle Harbor in Port Jackson, Sydney, and about three and a half miles from Manly, are several carvings on the rocks done by the natives and long before the arrival of the white man. They represent fish, large and small, principally of the shark tribe, but are now fast being worn away by the feet of parties of picnickers and others.”

Similar carvings are to be found on the flat-topped rocks. At Thornton's Hill the representation of a man may be seen, although cart tracks have partially obliterated the body. A flat rock at Middle Head was covered with carvings of whales, sharks, and other fish, one whale being at least 30ft. in length. Another flat rock on Sydney Common was covered with figures of kangaroo, opossums, fish, boomerangs, and other weapons. At Berry's Bay some figures of fish also exist, and on a rock at Brisbane Water is one of a man with boomerang and spears.*

IDIOPHIC ROCK CARVINGS AT FLAT ROCKS, NEAR MANLY, NEW SOUTH WALES.

This group as seen in Plate 21 is of interest from the presence of fish of large size, and the outline of an animal not unlike a flying squirrel, and not previously noticed.† The method of execution is quite similar to those above Bantry Bay and elsewhere—a series

* J. F. Mann. Paper read before the Geographical Society, Sydney.

† Records, Geol. Surveys, N.S. Wales, 1890.

of preliminary indentations rendered confluent by subsequent blows and so producing a grooved outline.

Fig. 1. Large fish, 24ft. long, indented partly on the sandstone table and partly on a rounded inclined surface.

Fig. 2 Another fish lying at right angles to Fig. 1. It is 31ft. 9in. long.

Fig. 3. An extraordinary fish, sub-parallel to Fig. 2, and more or less below Fig. 1, 16ft. 9in. in length. Within its outline is that of a man, Fig. 8.

Fig. 4. A shield of the usual type portrayed in idiographic carvings.

Fig. 5. A shield with expanded apices, gathered or puckered together.

Fig. 6. Rude figure of a kangaroo, 7ft. in height.

Fig. 7. Well-executed figure of a smaller kangaroo.

Fig. 8. Figure of a man, possessing all the peculiarities of aboriginal authorship.

Fig. 9. Group of objects in a depression on the sandstone table.

9^a. A fish, probably a "hammer-headed shark," 5ft. length.

9^b to 9^f. Objects of unknown affinity.

9^f. A fish, with the head marked off by a diagonal line.

9^g. A fish with a wide gape.

9^h. Unknown body, but allied to Figs. 9^b to 9^f.

9ⁱ. Perhaps intended for a "flying squirrel."

Drawn from nature by Mr. G. H. Barrow, Australian Museum, Sydney.

A notable sculpture discovered on this continent was found by Sir George Grey, in the year 1835, on or near the Glenelg river, on the North-West Coast. He had discovered the remarkable caves containing the paintings referred to in this work, and he says he was moving on when he observed the profile of a human face cut in sandstone rock which fronted the cave. This rock was so hard that to have removed such a large portion of it with no better tool than a knife and hatchet made of stone, such as the Australian natives generally possess, would have been a work of very great labor. The head was 2ft. in length and 16in. in breadth in the broadest part; the depth of the profile increased gradually from a mere line at the edges to a thickness of 1½in. at the centre. The ear was rather badly placed, but otherwise the whole of the work was good and far superior to what a savage race could be supposed capable of executing. The only proof of antiquity that it bore

about it was that all the edges of the cutting were rounded and perfectly smooth, much more so than they could have been from any other cause than long exposure to atmospheric influences.

The intaglio shows without the slightest doubt that the model chosen by the sculptor had been of a different race from the Australian, most probably Javanese; but whether the artist was a foreigner or a native must remain doubtful.*

Leichardt, in 1846, who saw the representation of an emu's foot carved on the bark of a tree, says that "the artist had performed it with all the exactness of a good observer" This was the first specimen of the native fine arts he had witnessed on his journey.

Captain Stokes also, whilst surveying the north-west seaboard, in H.M.S. *Beagle*, about 1840, in those large and numerous clusters of islands called "Dampier's Archipelago," discovered some carvings on Depuch Island which is the centre of a string of islands, bearing the name of "Forestier Group," and fronting the coast at the distance of from one to three miles. It is much larger than the others, being about eight miles in circumference, and reaching an elevation of 514ft.; whereas the smaller islands, some of which are thickly covered with brushwood and coarse grass, are none of them above 50ft. high, and are of a formation totally different, being of a very coarse gritty yellow sandstone, in many places quite honey-combed, with some low sandhills superimposed.

Although Depuch Island is one vast pile of reddish-colored blocks, scattered about in the greatest possible confusion, sometimes resembling basaltic columns, it yet presents an even outline when seen from a distance to seaward. In the valleys, and on some of the more level spots near the summit, there are occasionally slight layers of soil, affording nourishment to a coarse grass, a few bushes, and several stunted eucalypti; and generally the vegetation of the island is extremely scanty. This group of islands is so connected with the main by extensive sandbanks that at low water it is possible to walk across to them, and of this facility the natives no doubt avail themselves in order to procure turtle. It appears, indeed, to be only on such occasions that they can visit "Forestier Group," as they (Stokes' party) saw no traces of rafts on this portion of the coast.

Depuch Island would seem to be the favorite resort of the natives, and the party found several of their huts still standing. These were constructed of boughs and twigs fixed in the ground, and joined overhead in a circular shape. Over this was thrown a loose matting of twisted grass. The natives are doubtless attracted to the place partly by the reservoirs of water they find among the

* Grey's Expeditions in Australia.

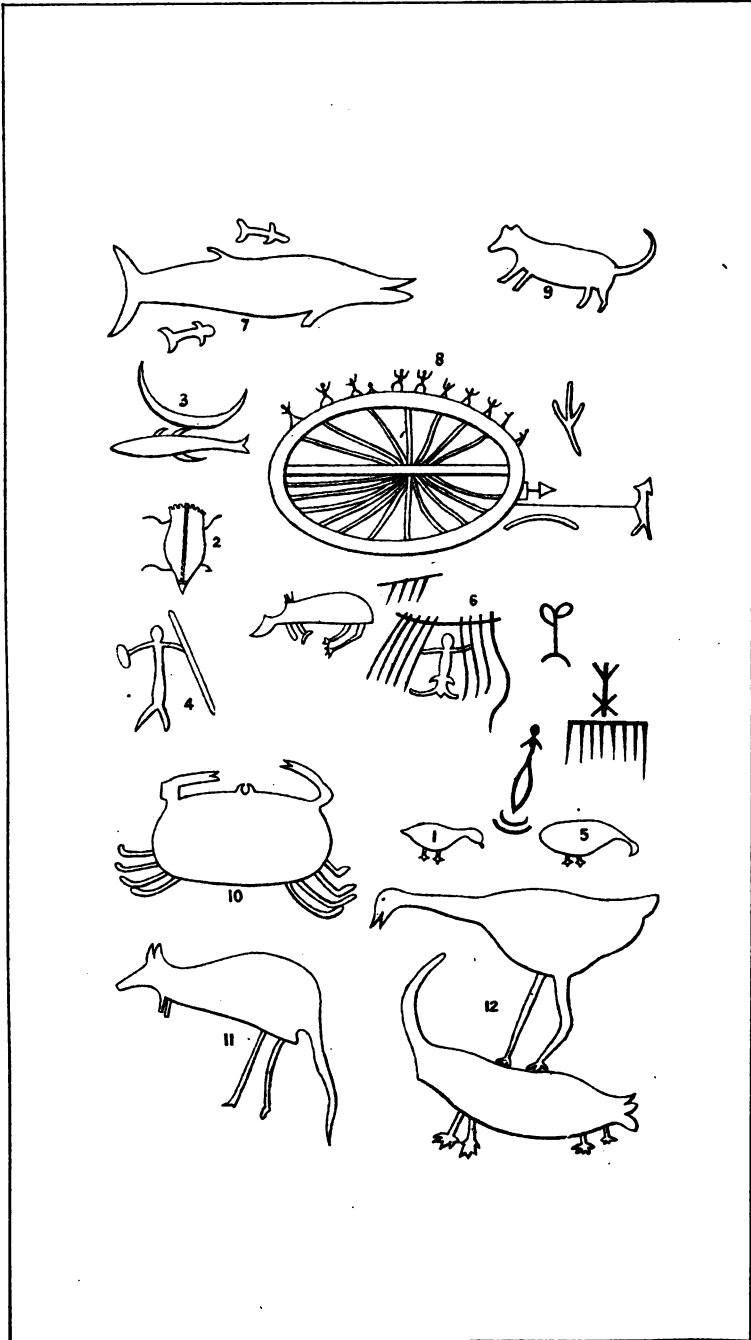
rocks after rains, and partly that they may enjoy the pleasure of delineating the various objects that attract their attention on the smooth surface of the rocks. This they do by removing the hard red outer coating, laying bare to view the natural color of the greenstone, according to the outline they have traced. Much ability is displayed in many of these representations, the subjects of which could be discovered at a glance. The number of these drawings is immense, so that the natives must have been in the habit of amusing themselves in this innocent manner for a long period of time. Mr. Stokes says:—"I could not help reflecting, as I examined with interest the various objects represented—the human figures, the animals, the birds, the weapons, the domestic implements, the scenes of savage life—on the curious frame of mind that could induce these uncultivated people to repair, perhaps at stated seasons of the year, to this lonely picture gallery, surrounded by the ocean wave, to admire and add to the productions of their forefathers."*

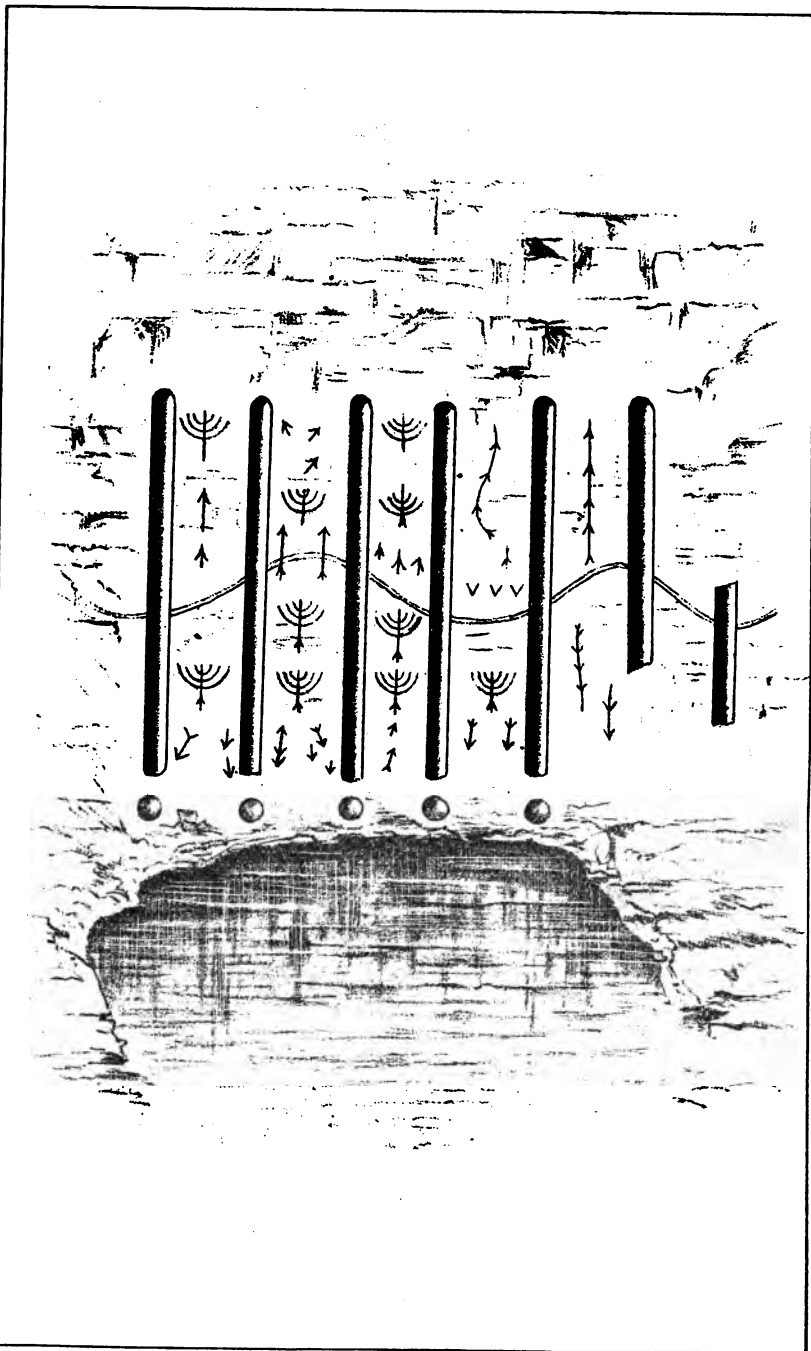
The following list (Plate 22) will convey an idea of what they are supposed to represent:—

1. A goose or duck.
2. A beetle.
3. A fish, with a quarter moon over, considered to have some reference to fishing by moonlight.
4. A native, armed with spear and wommerah, or throwing stick, probably relating his adventures, which is usually done by song, and accompanied with great action and flourishing of weapons, particularly when boasting of his powers.
5. A duck or a gull.
6. A native in a hut, with portion of the matting with which they cover their habitations.
7. Shark and pilot fish.
8. A corroboree, or native dance.
9. A native dog.
10. A crab.
11. A kangaroo.
12. This appears to be a bird of prey, having seized upon a kangaroo rat.*

I have seen an excellent carving of emus' feet in the solid rock on the Willipa run, north-east of Hollowillina, and the Hon. John Forrest, in his journey of explorations in 1874 (when about midway between the city of Perth and the Overland Telegraph line), discovered several pieces of wood tied in bundles, and

* Stokes' Voyage of H.M.S. *Beagle*.





fixed in the lower branches of some trees, apparently for security, which were carved with grooves along them and cross grooves at intervals, "evidently not intended for use, but for display and ornament." They were of a dull color, as they had been darkened by rubbing in with grease and ochre.

In the year 1873, on the 27th June, Colonel Egerton-Warburton was prosecuting his remarkable journey across to Western Australia, starting from the Overland Telegraph line. On this date he was at the Waterloo Wells, a little within the boundary line of South Australia, when, he says in his journal, "I sent the camels on, and went with one companion to the top of a small ironstone hill. The view was anything but cheerful. Found two-stone slabs marked, and a round stone hidden in a hole on the top of the hill. Brought them away as curiosities. These slabs were thin flat stones, measuring about 15in. by 6in., of an oblong shape, and rounded at the ends. They were marked with unintelligible scrawls. The round stone was about the size of an orange."

Mr. Arthur John Giles, in the year 1873, also discovered, at the junction of Sullivan's Creek with the Finke river, carvings on rocks, and he informs me that the sketch (Plate 23) "represents a smooth-faced rock, portion of a rocky cliff about 45ft. high, composed of hard metamorphic slate. The lower portion of the sculptured face has been worn and broken away, forming a sort of cave; from the level bank of the creek to the lower edge of the sculptured rock is about 15ft. The perpendicular lines are cut out forming semi-circular grooves about $1\frac{1}{2}$ in. in diameter, cut in to a depth of nearly $\frac{1}{2}$ in.; all the remaining figures are also carved into the solid rock to a depth of about $\frac{1}{2}$ in. The right hand portion has been broken away by storms and other causes. The sketch is far above flood influence now, and a person could not gain access to it without a ladder." None of the natives could give him any information respecting it. It must necessarily have been done at some very remote period of time, as the wearing away of such hard rock to form the large cavity underneath must have taken a long period of years to accomplish; coupled with this is the fact that the sand bed of the creek has a further depth of about 15ft. or 20ft.

The above carving has created a theory that it was intended to record the movements of a party for five months, the round dots representing full moons, the spaces between the lines lunar months, the wave line a creek, the arrows indicating the movements of the party in search of food, and the half-circles representing camps. The inference drawn from this theory is that a remnant of Leichardt's party had reached the Finke river and there endeavored to set forth their position and danger.

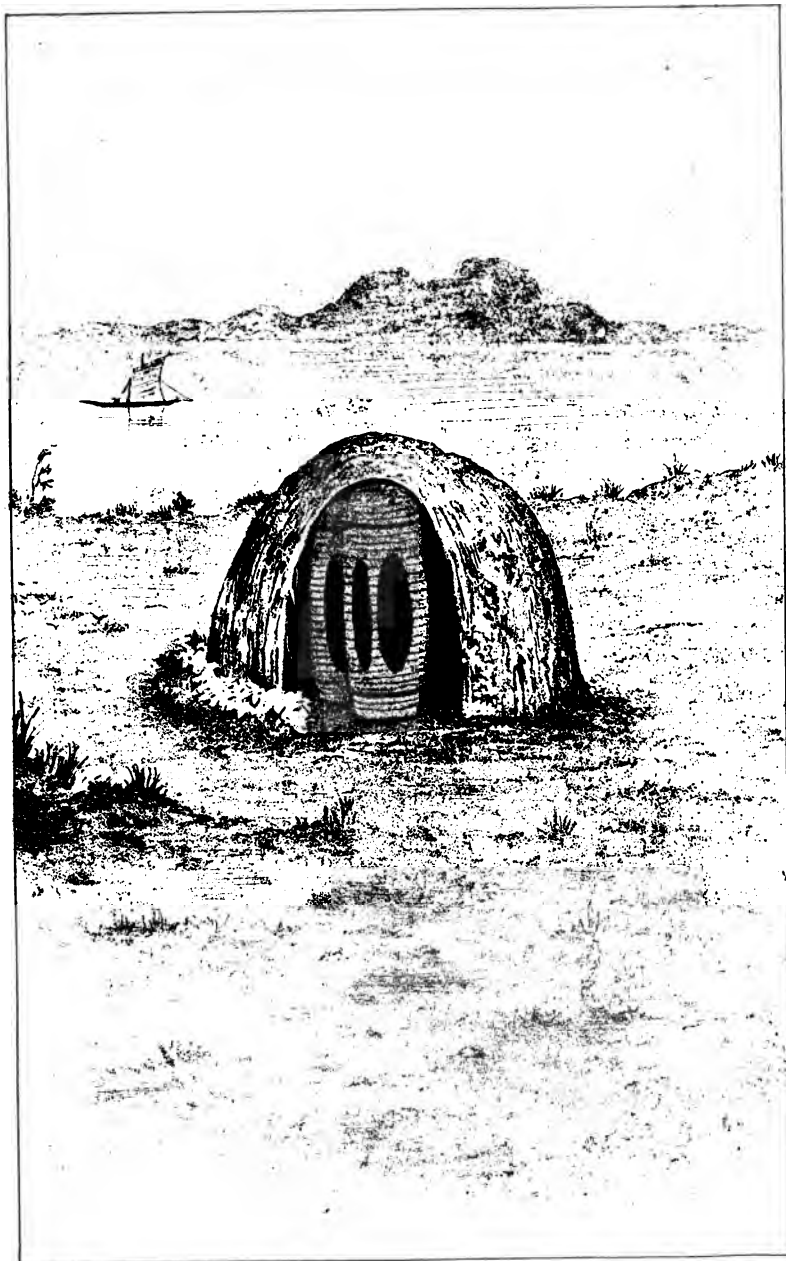
But the theory is to my mind entirely hypothetical, as this rock carving is altogether of too ancient an appearance to warrant it. The caving in of the lower portion of the rock gives evidence of years of erosion since the work was executed, and the wavy line across the whole does not represent a creek, but is an actual crack in the rock face, caused doubtless by the lower portion having fallen away, leaving little or no support to the upper structure.

Capt. Flinders, in his survey of the Gulf of Carpentaria in 1802-3, discovered on one of the islands of Sir Edward Pellew's Group, under a shed of bark, "two cylindrical pieces of stone, about 18 in. long, which seemed to have been taken from the shore, where they had been made smooth from rolling in the surf, and formed into a shape something like a ninepin. (See Plate 24.) Round each of them were drawn two black circles, one towards each end, and between them were four oval black patches, at equal distances round the stone, made apparently with charcoal. The spaces between the oval marks were covered with white down and feathers, stuck on with the yolk of a turtle's egg, as he judged by the gluten and by the shell lying near the place." Of the object in setting up these stones under a shed no person could form a reasonable conjecture. The first idea was that it had some relation to the dead, and they dug underneath to satisfy their curiosity, but nothing was found.

This simple monument is represented in a plate in Flinders' work. Indications of some foreign people having visited this group were almost as numerous and as widely extended as those left by the natives.

Plate 25 is taken from a photograph of a carved walking stick, the work of a native of one of the tribes on or near the Finke river, in the centre of the continent. It represents a hawk whose *habitat* is in this portion of Australia, and which is the pursuer and destroyer of snakes. In this carving the bird is shown to have caught a snake by the back of the head, its talons clasping the reptile firmly round the neck in such a position that the snake is powerless to injure the bird. A second and smaller snake is seen to have twined itself round the body of the larger one in the grasp of the hawk. The head of the bird forms the knob, and the snake forms the walking stick itself. The peculiar and massive bill and head of the hawk are said to be excellent delineations of the bird, although I have never seen it, and cannot therefore vouch for its being an exact representation. This walking stick is now in the possession of Sir E. T. Smith, K.C.M.G., of the Acacias, near Adelaide. The carving is beautifully done, the only tools used in its manufacture being those of native kind, namely, flint and shell.

Plate 24.



SURVEYOR GENERAL'S OFFICE, ADELAIDE, A. VAUGHAN, *Photo Lithographer*.







Another walking stick, manufactured by the same native artist, now in the possession of Mr. Craigie, of Norwood, exhibits a similar taste for representing this bird. Here also is a snake clasped by the neck, with a lizard, spider, and cicada, and also a smaller snake clinging to the principal one.

This walking stick is 2ft. 11in. long; the bird at the upper end is 5in. long, the head and bill being 3in., and the bill itself 1½in. The lizard is 10in. in length, the spider 4½in., the cicada 3½in., and the smaller snake coiled around the principal one is 11½in.

I have on the table before me now a bushman's stockwhip, with its very long lash and singularly short handle. The handle (except the knob) is of sheaoak, beautifully smooth and round; at the thick end a knob has been fastened on by a long screw. The knob is cut from a knotty branch of a native cherry tree and is beautifully carved. The history of this carving is as follows:—A friend of mine in 1858, when a boy about twelve years old, was at the Aroona Head Station, a little more than one hundred miles to the north-east of Port Augusta. There was a native camp not far from the station, and he spent more of his time during the day amongst the blacks than he spent at the homestead. One morning going to the camp he took with him some old copies of illustrated newspapers which he showed to his black friends, explaining in their language the meaning of the pictures, among which was one depicting two deer, a buck and a doe, under the shade of some trees. One of the blackfellows, whose skill in carving had been noticed before, expressed his confidence in being able to carve an imitation of these two animals, and my friend stood by and saw the work done with a flint. The animals appeared to have been startled, the buck looking intently forward whilst the doe was rising from a recumbent position. Both the animals and the tree stood out from the wood clear, distinct, and well defined, showing marvellous ingenuity and skill in the work of copying from a picture.

There is a tree on the Burdekin river, with the bark removed, on which is carved numerous marks to commemorate a tribal fight. The record, is however, very ancient, and the tribe can give no information on the subject.

MESSAGE STICKS.

In those parts of the continent, and especially on or about the River Murray, where the wurleys or huts were covered with bark, the natives used to draw and carve various objects and scenes, especially on their message sticks, which were always intended either as an aid to the memory of the bearer of the stick from

one tribe to another, or in recording events which they deemed worthy of being held in remembrance.

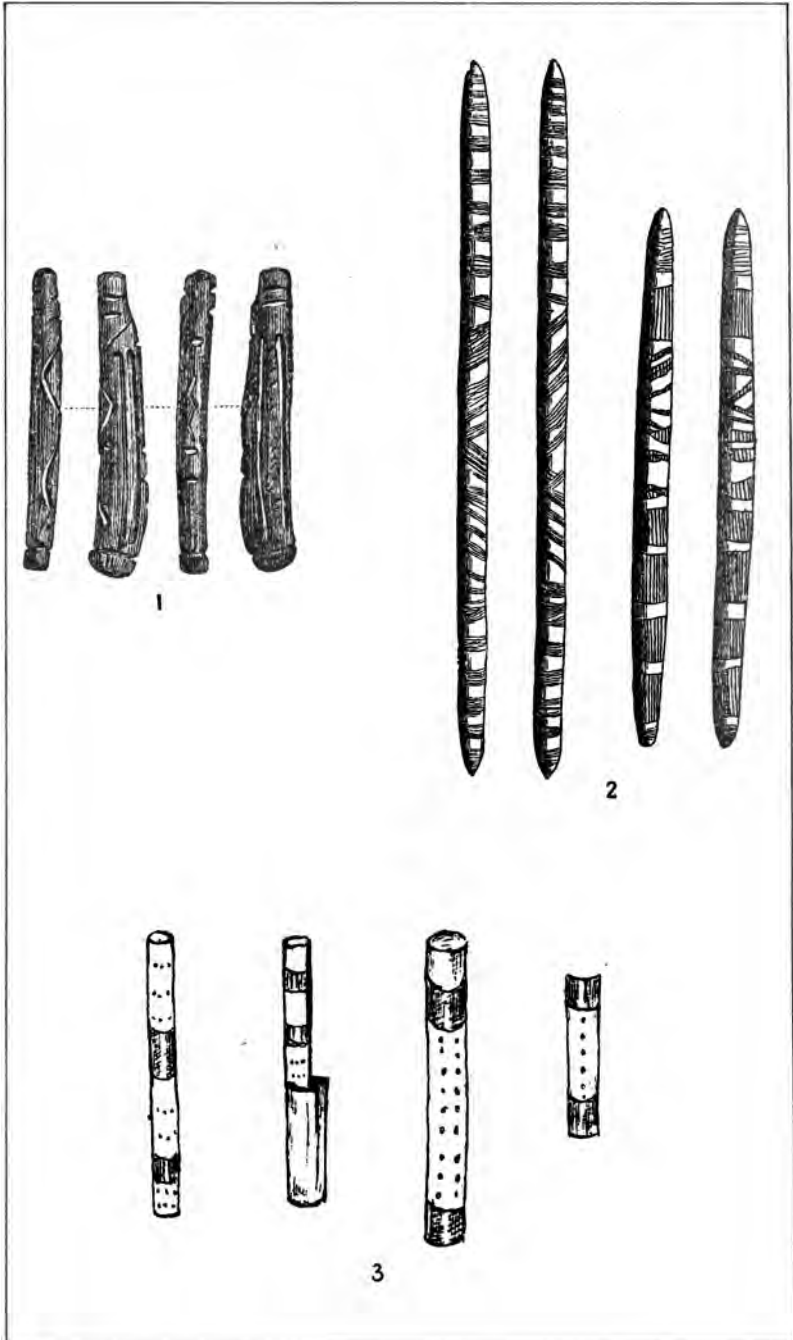
Numerous message sticks are in existence amongst the tribes; some of them are small, not more than 3in. or 4in. in length, some few very much shorter, and about an inch in thickness. They are not necessarily curved in form, but are notched all over, frequently in diamond-shaped marks. They are sometimes flat, whilst others are round, and their surfaces always more or less carved with transverse lines, squares, dots, or diamonds. When a messenger is sent with a message stick he explains its meaning to those to whom he is sent. If it be a challenge to fight, and the challenge is accepted, another message stick is returned. "Mr. Bulmer states he has seen one carried from camp to camp as belonging to a particular corroboree, and that a stick of this kind came down the Murray to the junction of the Darling. To his astonishment, when he went to Gippsland shortly after seeing it on the Murray, he found it had penetrated even there, so that it must have been conveyed over a thousand miles. It was of the dimensions of an ordinary walking stick, and was carved after the usual aboriginal manner."* In June, 1870, an aboriginal named Jacob was condemned in Queensland for a serious crime committed by him, and a plot was laid by some members of his tribe to rescue him. The message stick, of which the four sides are shown in Plate 26, Fig. 1 (which had been conveyed to Jacob by some means of which the gaol authorities could get no knowledge), was found in his possession, and a native trooper, belonging to another part of the country, gave an interpretation of the symbols as follows:—"Two blackfellows come up in two days; seventeen days ago. One blackfellow come up to where this fellow (Jacob) sit down. The track on the stick shows the whole route the blackfellows took on their way to Brisbane," and the message means that the aboriginals were taking steps to aid Jacob in some attempt to escape.†

"The sticks are valuable as showing that the natives can convey intelligence to their friends by symbols, and that these symbols can be read by the recipient."

The next illustrations (Plate 26, Fig. 2) show two message sticks, one of them 10in. in length and a little more than $\frac{1}{2}$ in. in diameter, the other $7\frac{1}{2}$ in. long and $\frac{1}{4}$ in. thick. "They are formed of a hard yellowish wood; the marks are neatly and clearly drawn, and are filled in with some black pigment so as to be distinctly seen. Similar messages were sent to distant tribes by the natives of West Australia, in cases of hostility and other matters connected with tribal customs."

* Brough Smyth's *Aboriginals of Victoria*, Vol. I., p. 355, note.

† Ibid. 354.



"These message sticks will be regarded by scientific men as of peculiar interest and value, as showing to what a vast extent this system of conveying intelligence amongst the native tribes prevails, and in what manner it originated." Not only were these message sticks of use between tribe and tribe, but they served to convey love passages between the travelling native and his dark but loving sweetheart. Mr. Curr relates* that he was once travelling with a black boy when the latter produced from the lining of his hat a bit of a twig about 1in. long, and having three notches cut on it. The native explained that he was a dhomka,† that the central notch represented himself, and the two other notches the youth sending the message and the girl for whom it was intended. It meant, in the words of Dickens, "Barkis is willing." The dhomka sewed up the love symbol in the lining of his hat, carried it thus for months without divulging his secret to his sable friends, and finally delivered it in safety to the girl. This practice appeared to be well known, and was in common use.

The aborigines in the centre of Australia have also message sticks, but they are small in size, being not more than from 4in. to 8in. in length. Those depicted in Plate 26, Fig. 3, are now in the National Museum in Adelaide. The longest is only 8in. long, and none of them is thicker than the thumb. They are of myall wood and painted in red and white, the white portions being marked with red dots, though whether these dots have any special significance I am unable to say.

Curr, in "The Australian Race," says that string saturated with the blood of the sender is also sent as a message, intimating to the person to whom it is sent that he is "to come speedily" to the sender.

* The Australian Race, Vol. III., p. 176.

† Messenger.

CHAPTER IV.

CLOTHING.

All the early writers on the natives of Australia agree in declaring that they were always and everywhere in a nude state, and under no conditions did they wear clothing in the common acceptation of the term, save now and then with skins made into rugs, rushes woven into capes or petticoats, and sometimes with cloaks made of leaves or of seaweed. On the Bogan river Sir T. Mitchell met with a native chief who had on a rather imposing costume, consisting of a network which confined his hair, worked into the form of a cap, having in the front a plume of white feathers, and a short cloak of opossum skins drawn rather tightly round his body with one hand, while his boomerang and his waddy were grasped in the other.

These men of the Bogan district (New South Wales) wear girdles made of the hair of the opossum, a tail of the same material being appended to the girdle, both before and behind, which seems to be the only part of their costume suggested by any ideas of decency. The girdle answers, besides, the important purpose of supporting the lower viscera, which seems to have been found necessary for the human frame by all savages.*

On Cape Hotham, in Clarence Strait, lat. 11° S., long. 133° E., Captain Stokes found near some huts of the better class specimens of an article of clothing hanging on trees. It is a kind of covering for the shoulders, like a tippet or cape, made of coarse grass. This kind of clothing is also worn as a covering round the waist.

CLOAKS, APRONS, ETC.

The most complete and perfect garment to be met with in the earlier days of the history of South Australia amongst the natives was the seaweed dress occasionally made by the Milmendura tribe, who inhabited the shores of Encounter Bay. It resembled a coarse matting, the long ends of the grass-like weed forming a graceful fringe at the bottom of the garment. This dress was, however, but rarely worn, and only manufactured during an inclement season to protect the individual from the weather on those exposed shores. The natives of South Australia generally, particularly

* Sir T. Mitchell's Explorations.

those near Adelaide, were without any clothing whatsoever, although cloaks made of kangaroo or opossum skins were occasionally to be met with. The natives on the Lakes Alexandrina, Victoria, and Albert, as well as on the Lower Murray, wore round mats made of grass, rushes, or the fibre of the bulrush, but those round Port Essington were entirely naked, unless they were about to visit the township, when they arrayed themselves in mantles of green leaves.

Their opossum rugs or cloaks of kangaroo skins, after having been stretched and dried either before a fire or in the sun, were roughly trimmed up and sewn together by means of kangaroo sinews. The edges of the skins were then pierced with a sharp-pointed bone for the sinews to pass through. When a sufficient number of skins had been sewn together, the next operation was to ornament the inner or flesh side of the cloak, which was done by doubling a part of the skin a few inches at a time, and scraping the narrow edge thus made with a flint or the sharp edge of a shell. The design generally partook of a zigzag or diamond shaped pattern, according to the taste of the wearer, and was then rubbed in with some pigment of a striking color, very often red. These cloaks were always worn by passing one end under the right arm and fastened with a wooden or bone skewer on the left shoulder, a mode of using the cloak which allowed perfect freedom to both arms.

Mr. Bradshaw states—"In the land between the Prince Regent and Roe rivers, in wandering along the streams, it was found that the timber of this district is principally box, white gum, baubinea, and lancewood, with small patches of a tree very like the beefwood of Queensland. The boat tree also appears frequently in the lower grounds. A great number of the trees in this tract of country bear the marks of stone axes—some recently done, indicating the perseverance of the aborigine, who, with the rude instruments of a savage state, would thus chop large cavities into the hard, tropical woods in search of wild honey, guanos, opossums, or other food." Scarcely a papyrus tree was exempted from yielding up many square feet of its peculiar bark to satisfy the niggers' demand for mats, roofs, and blanket, the bark in question serving the blackfellow for all three, as well as for a light kind of basket that is sometimes made out of it. At nearly every large pool of water in this part of the Kimberley district the sheets and patches of rotting papyrus bark and the scattered ash-heaps marked the scene of a deserted nigger camp."

Mr. Angas, in his interesting and most valuable work, "South Australia Illustrated," represents a native woman carrying her

child upon her back (in a skin pouch), which she is suckling according to the customary method, reaching the breast by introducing its head beneath the mother's arm. About Halifax Bay the natives make blankets or sheets out of the bark of the *metaleuca*, or from the fibre of the *Currajong*.

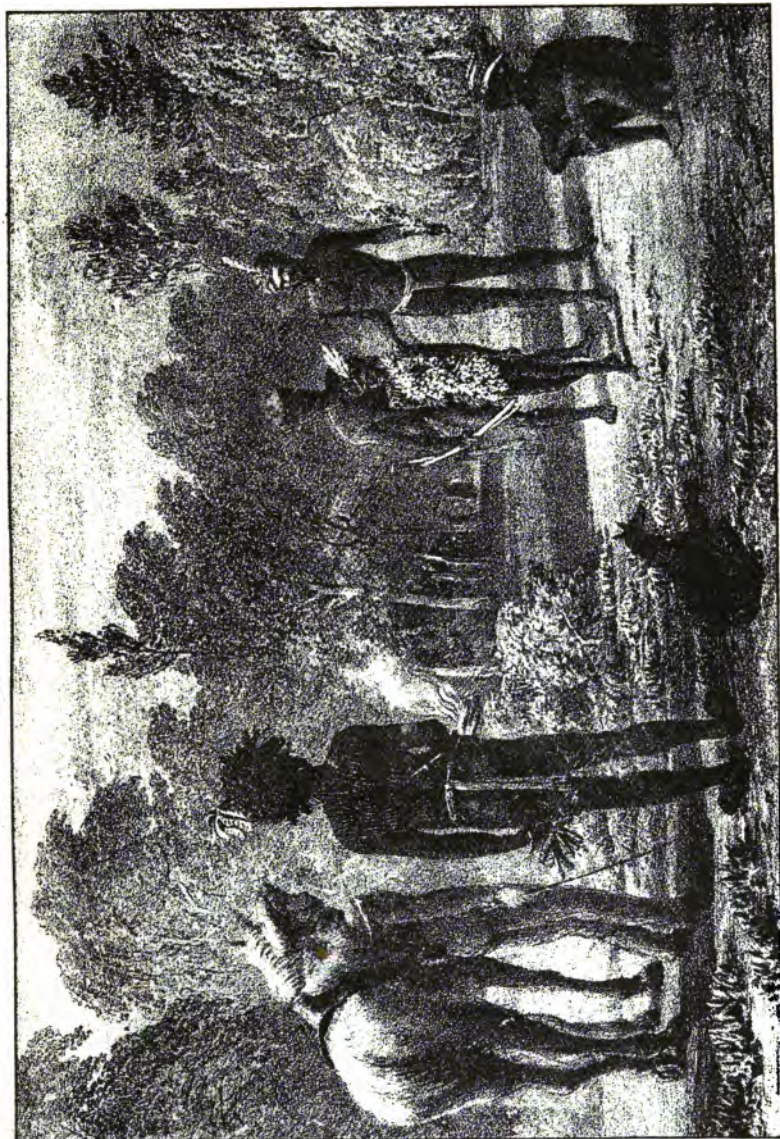
When on the Bogan river Sir T. Mitchell, in May, 1832, was visited by some of the natives of that district. From their expectant and anxious looks, and their cooeys, answered from the bush beyond the river, he expected to see their chief emerge from the woods. After waiting for nearly an hour a man of mild but pensive countenance, athletic form, and apparently about fifty years of age, came forth, leading a very fine boy, so dressed with green boughs that only his head and legs remained uncovered, a few emu feathers being mixed with the wild locks of his hair. "I received him in this appropriate costume," he says, "as a personification of the green bough, or emblem of peace." (See Plate 27.)

Sometimes the skin of an animal was cut into strips and tied with twine (made from hair or the fibre of bark) to another string of similar material and made, so as to conceal the lower parts of the body both in front and behind. Indeed, throughout the whole continent aprons are worn, made either of the skin of animals or their fur spun into thread and worn round the loins. Some of these are articles of great beauty and strength.

Young females wore a skirt or apron composed of emu feathers, which were attached to a strong string made generally of the sinews of the tail of the kangaroo, and were worked in by fine cord made either of the fibre of bark or the fur of the opossum or native cat, the feathers being so arranged as to hang gracefully down. (Plate 28.)

Mr. T. Brown, a friend of mine, who was out surveying a run near the Musgrave Ranges in 1882, was disturbed one night in camp by the near presence of some natives; and in the early morning, on approaching the place from which he imagined the sound came, he found, not the natives, but a pair of native shoes, or sandals, made of emu feathers and human hair stuck together with blood (which is taken from the arm of the maker). The soles were about 1½ in. thick, very soft, and of even breadth. The upper portions were nets made of human hair. These shoes are only used by the blacks at night when on an expedition to attack their enemies. The object they serve is to prevent the wearers being pursued after a murderous night attack. It is only on the softest ground they leave any mark, and even then it is impossible to say in what direction the enemy came or returned, as

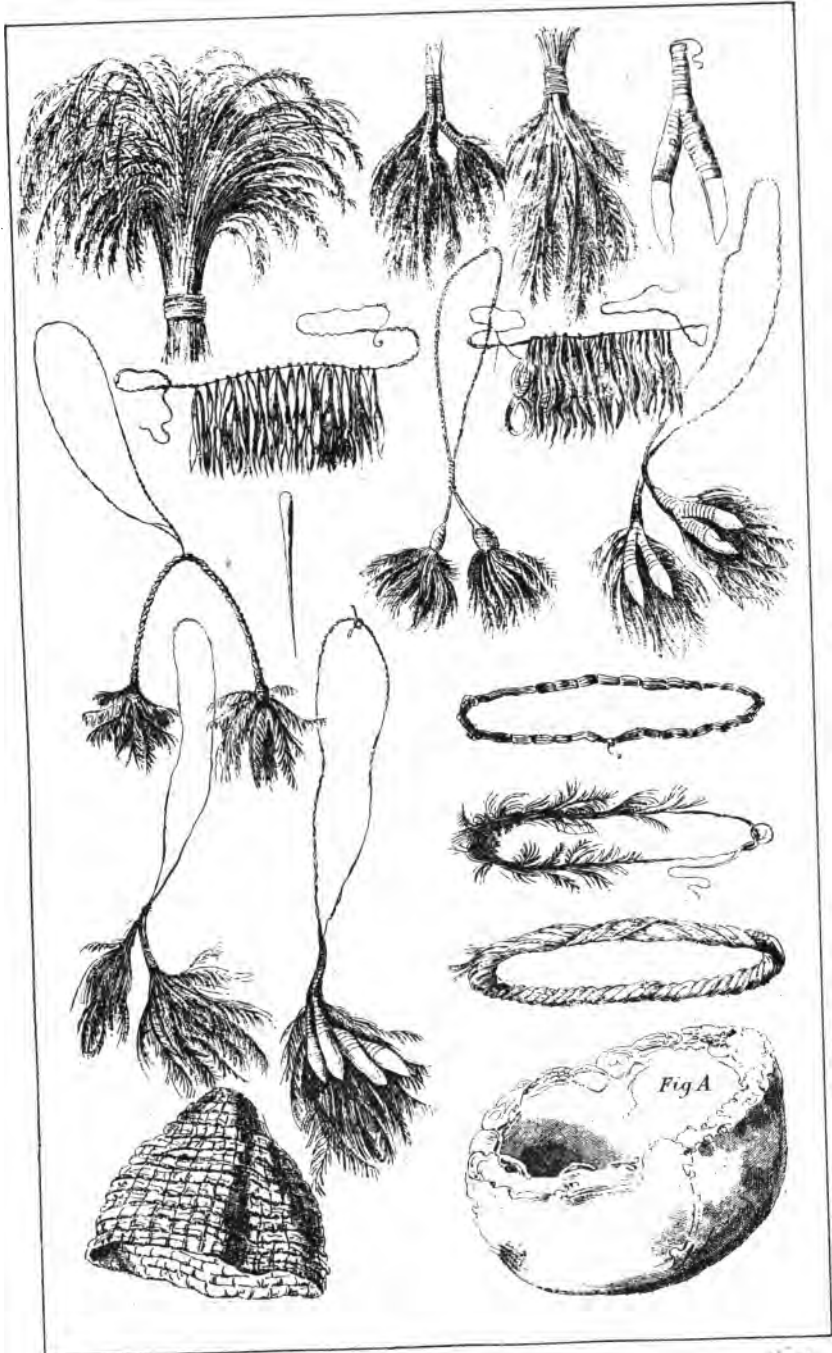
Plate 27.

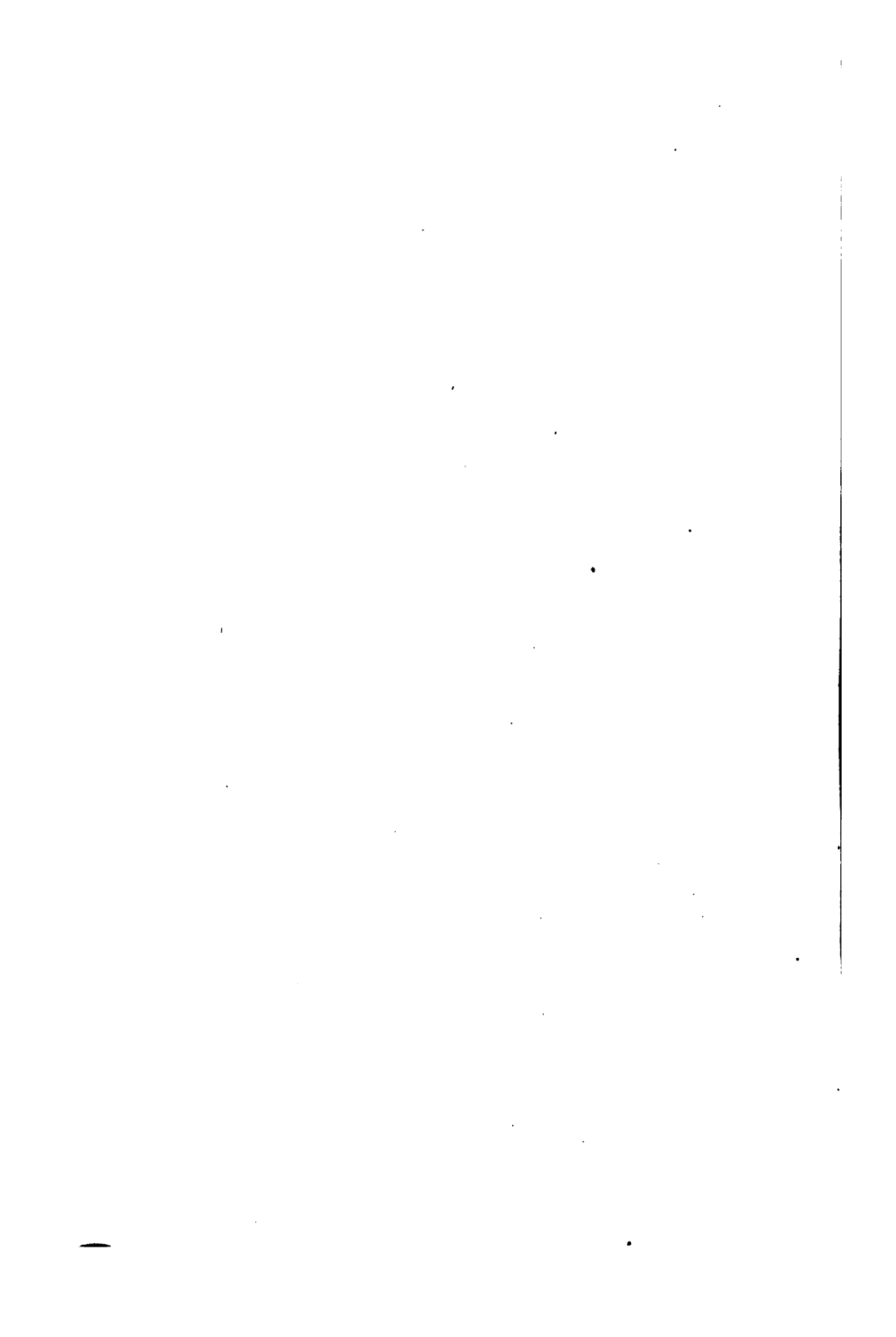


SURVEYOR GENERAL'S OFFICE, ADELAIDE, AUSTRALIA, Photo 228 September









the toe or heel cannot be distinguished in the track ; so that the natives say they are able to track anything that walks except the wearer of the *kooditcha*, the name by which the shoe is known. My friend showed me these shoes when he returned to Adelaide. Samples may be seen in the National Museum in Adelaide, in the Geographical Rooms, and also in the Melbourne Museum. I am not aware of any shoes of this description being made or worn by any other tribe except those in Central Australia.

HEAD-DRESSES.

The head-dresses of the natives are interesting from their variety and character. In some tribes they consist of simple fillets or bandages neatly wrought and worn round the head to confine the hair, in some cases whitened with pipeclay, in others with red ochre, in others with the bright red extracted from the little sundew plant. Occasionally the dandies of the tribe will wear a white one with a red one under, the interstices of the upper fillet showing the one beneath. This custom is so general amongst all the tribes as to indicate that some superstition is connected with its wear. Amongst the natives of Bathurst Island head-dresses are made of sea birds' feathers.

It is curious to witness a sugar-loaf form of head-dress made by the men of the Dieyerie tribe, who are left to guard the camp whilst the rest take part in an expedition to obtain red ochre from the quarry near the Burratchuna Creek. The men in the camp first drive every woman early in the morning a short distance away, who are not allowed to return until sunset. Whilst thus absent they collect the nardoo and other seeds, which are stored against the return of the expedition. The men of the camp in the meanwhile keep up a continuous singing, and making, from the native cotton-bush, sugar-loafed caps, about 18in. in length, large enough at the mouth to admit the head. These are intended for the other men of the tribe on their return with the ochre. When this ochre party returns to within about 200yds. of the camp prepared for them, they drop on their hands and knees so as not to awaken the occupants of the camp. They then crawl within a few yards of them, and rising suddenly commence yelling and clapping their hands, when the men of the camp rush out to ascertain whether all of the party have arrived safely ; and the women, who have also returned, are now crying, children screaming, dogs fighting, and altogether making up such a noise as is impossible to describe. The sugar-loaf caps are now placed on the heads of the adventurers, the women prepare food for the men, and dancing is kept up until sunrise,

when the ceremony is over, until which the women are not allowed to speak to their husbands and relatives.*

Mr. J. H. Panton sent to Mr. Brough Smyth a very curious head-dress (*Oogee*), which is worn in the corroboree dance by the men of Cape York. (See the chapter on "Personal Adornment.")

Similar decorations are used by the natives of New Guinea living on the Fly river. These are composed of the wing and tail feathers of the white cockatoo. I have no doubt that this kind of head-dress is intended to be portrayed in the painting discovered by Sir George Grey in the cave on the River Glenelg, as shown on Plate 3. A head-dress of feathers is also worn by the men of Cooper's Creek.

In the north-west the men decorate their heads after a strange fashion on occasions of rejoicings, or when engaged in their mystic ceremonies. They place in the head-band, behind the ears, two small pieces of green wood, covered from one end to the other with very thin shavings, which appear like a plume of white feathers. The sticks are so placed as to admit of their being tied together in front, and at a distance have the appearance of two long horns. The Port Lincoln blacks get the white down from birds, and make a sort of wreath, which looks not unlike a woman's cap.

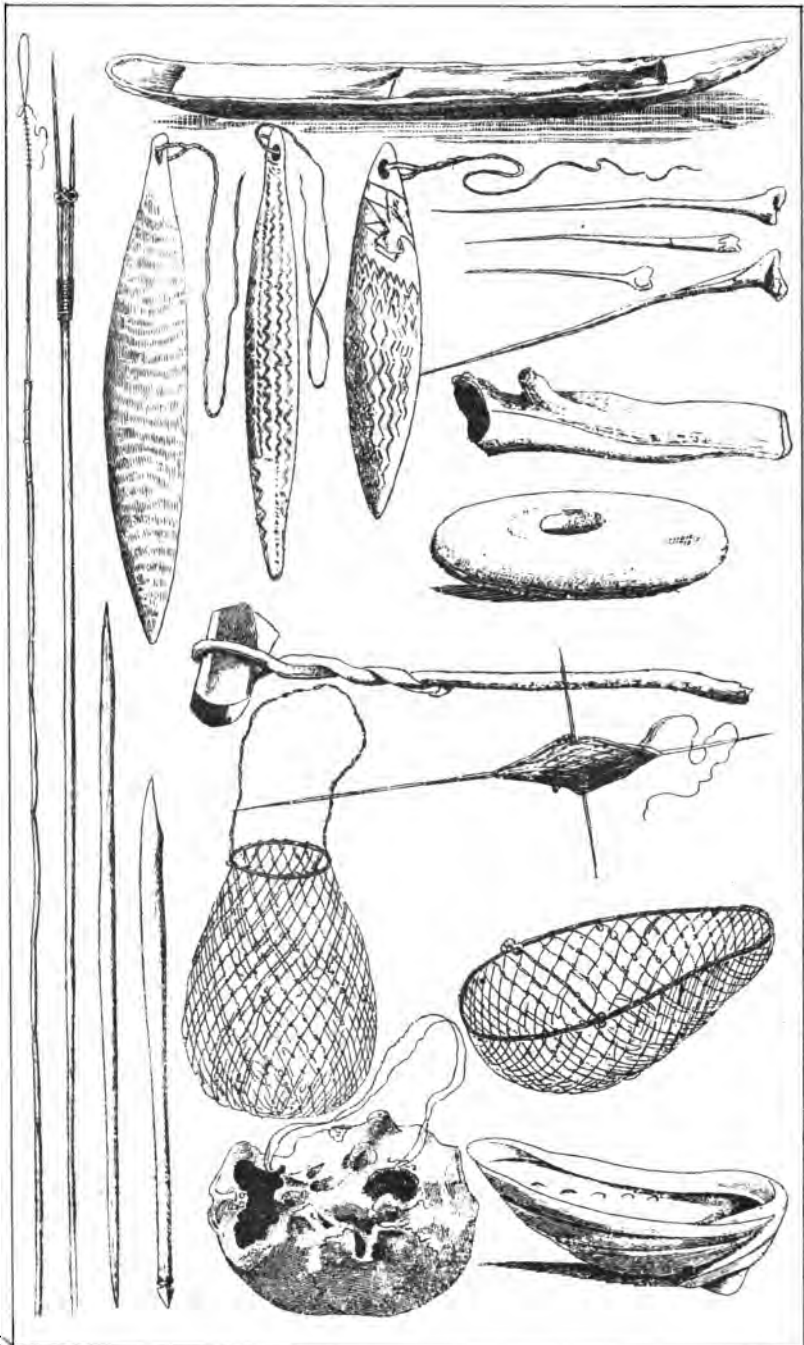
F. Gregory, in lat. $21^{\circ} 21' 30''$, long. $121^{\circ} 3' 30''$, found, at a native encampment, a singular head-dress shaped like a helmet. It consisted of a circular band of twisted grass the size of the head, into which were stuck upright twigs, brought together into a point 2ft. high, and the structure woven like an open basket, with yarn spun from opossum fur, the whole being no doubt considered highly ornamental by the wearer, although not of the least service as an article of protection to the head, either from the sun or in war. On the McLeay river, at the ceremony of initiation into manhood, the men wear a topknot of grass, whilst others tie the hair in a knot and cover the head with the snowy down of the cockatoo.† Amongst the Dieyerie a band about 6in. long and 2in. broad, made from the stems of the cotton-bush and painted white, is worn round the forehead.

Mrs. D. Daly, in her work "Digging, Squatting, and Pioneering Life," gives a telling account of the head-dress just now described. She says that her father and herself had taken a trip on horse-back from Port Durwin; and, she continues, "nothing at all extraordinary took place till we reached a thick belt of tea-tree and other low-growing shrubs, backed by a strip of jungle. Suddenly, from this cover, without warning, and almost under our horses' heads,

* Gason, The Dieyerie Tribe.

† From Port Macquarie to Moreton Bay, by C. Hodgkinson.





rose a party of natives. They were all strangers to us, but we stopped and spoke to them. These warriors were decorated with streaks of white and yellow clay; *on their heads were crowns of white cockatoo feathers, which stood upright over their brows in true barbaric fashion.* Each man of the party was armed to the teeth, carrying a full complement of spears, well burnished and freshly barbed."

The awls, or articles used for boring holes in the skins preparatory to sewing them together, were also used in pinning or securing the rug clothing together when worn. (See Plate 29.) They were usually made of the leg bones of animals, and were smoothed and scraped down to a very fine point. Sometimes they were made of hard wood, the points being hardened by fire. The two smaller things here shown were flattened like a knife or spatula, and were used in smoothing or flattening out the seams when sewn together.

SHELL APRONS.

The native divers engaged in the pearl industry in Western Australia sometimes wear aprons made of pearlshell, which are perforated at the upper edge and hang as a pendant from a waistbelt made of opossum fur. These shells are highly polished, and are often marked with curious devices, according to the taste of the wearers. The annexed account of their operations may be of interest.

PEARLSHELL FISHING.

In the northern coastal district of Western Australia, especially along the tract of coast called the "Ninety-mile Beach," also in King's Sound, an important industry—pearlshell fishing—is carried on. Although perilous to the divers, it nevertheless has many boats employed in the operations, and of three kinds, viz., schooners, luggers, and dingies. As many as 500 natives of the coast tribes are employed by about twenty local boats, each of them near thirty tons burthen.

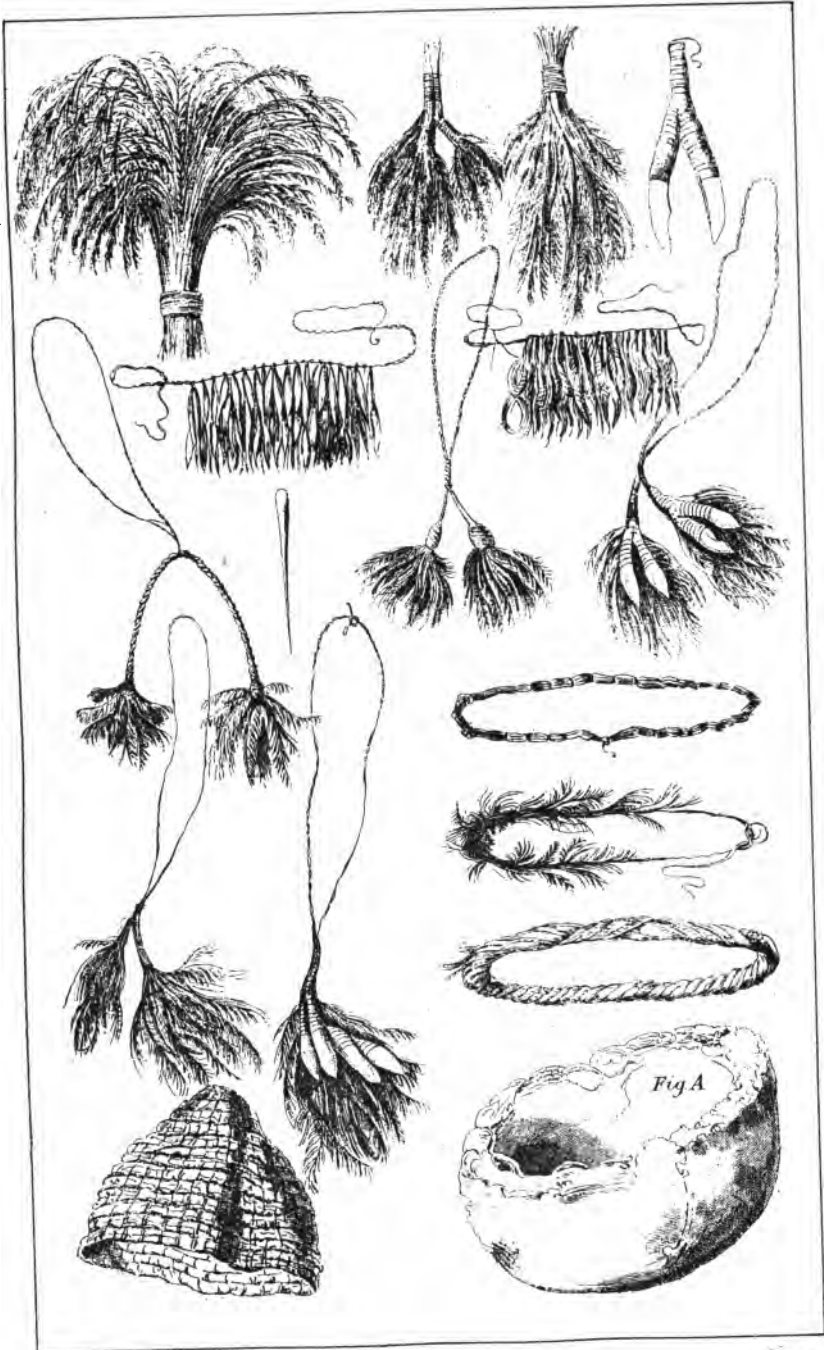
The natives are only allowed to dive for about 150 days in the year, during the warm weather, and in order to prevent any abuses are assigned to their employers in the presence of a magistrate, and sign of their own free will and accord. There are also other necessary restrictions as to hours of diving and depth of water. The interests of these natives are the peculiar care of the inspector of pearl fisheries, who resides amongst the fleet on board his own schooner, which is also a revenue vessel. The natives employed in diving spend the portion of the year not devoted to this pursuit in

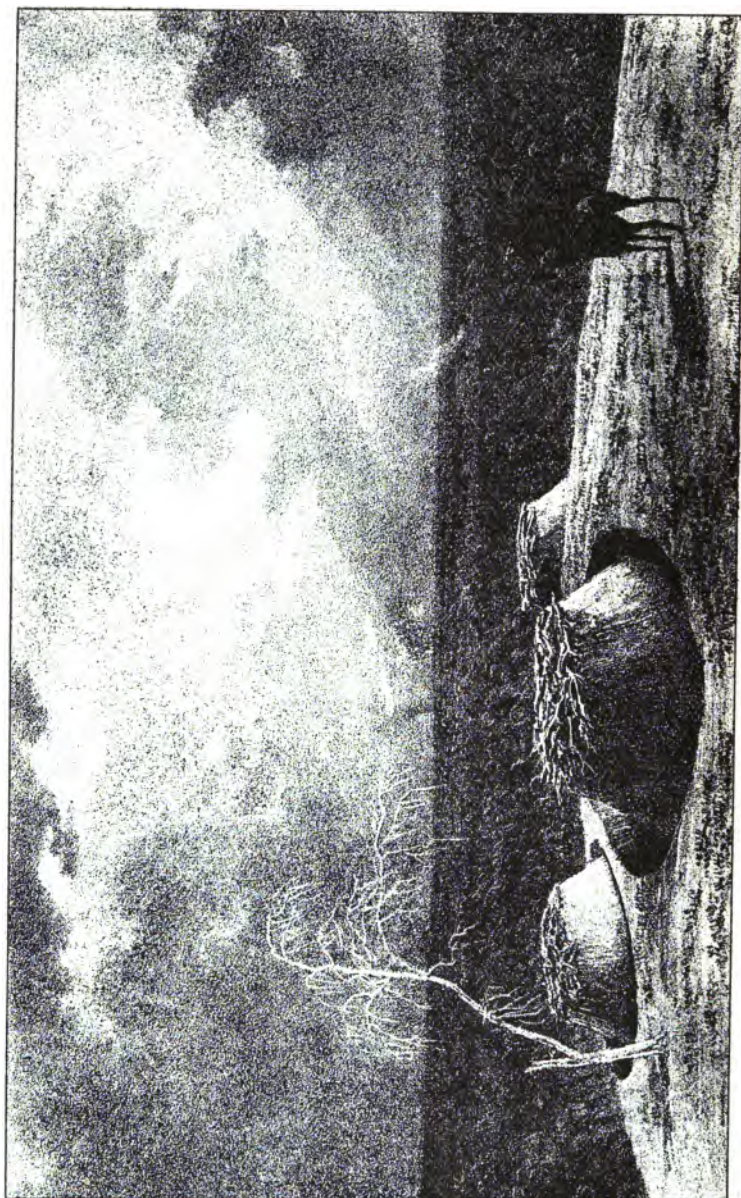
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SENIOR GENERAL'S OFFICE, ADELAIDE, AUSTRALIA. Photo by J. J. J. J.

Plate 31.



BRITISH GENERAL'S OFFICE ADELAIDE A VALCHON *From Lichenghwa*

CHAPTER V.

TOMBS.

Several modes of disposing of the bodies of the dead exist amongst the various tribes. In lat. $31^{\circ} 44' 28''$ S., on the east side of the Darling river, the tombs are formed on the tops of high hills. They generally consist of a circular trench about 30ft. in diameter, the grave being covered by a low mound in the centre.*

A little above the junction of the Darling with the Murray were many graves or mounds surrounded by and covered with dead branches of trees, as in Plate 30. On these mounds lay the same singular casts of the head in white pipeclay as are to be found on tombs near Fort Bourke and on the Lower Murray. (See Fig. A, Plate 28.)

Higher up on the Darling the graves are enclosed within parterres of the same oval or boat-like shape as those on the Lachlan river.

They consist of huts very neatly thatched over, the thatch being held in its place by well-wrought nets. Each hut had a small entrance on the south-west side, and each grave inside was covered with dry grass, on which lay some pieces of wood.†

Again, on the Darling, at a burial-place called "Milmeridien," was a fairy-like spot in the midst of drooping acacias. It was extensive and laid out in walks, which were narrow and smooth (as if intended only for spirits) and meandered in gracefully curved lines among the heaps of reddish earth, in contrast to the acacias and dark casuarinas around; other heaps, covered with moss, shot far into the recesses of the bush, where slight traces of still more ancient graves proved the antiquity of these simple but touching records of humanity.‡ (See Plate 31.)

Sir T. Mitchell, continuing, says: — "We had cut off a great bend of the Murray by our intricate journey among the lagoons, and had again reached the river at the point most desirable. On this upper ground we observed several tombs, all enclosed within parterres of the same boat-like shape first seen by us on the day we traced the Lachlan into the basin of the Murrumbidgee. Two of the tombs here consisted of huts very neatly and completely thatched over, the straw or grass being bound down by a well-wrought net.

* Sir T. Mitchell's Explorations.

† Ibid, Vol. II

‡ Mitchell's Explorations.

"Each hut had a small entrance on the south-west side, and the grave within was covered with dry grass or bedding, on which lay, however, some pieces of wood

"There was a third grave with coverings of the same kind; but it was not so neatly finished, nor was it covered with net.

"There were also graves without any covering—one of which appeared to have been burnt, two of these being open, empty, and about 3ft. deep."

On the Victoria river, lat. $16^{\circ} 10' S.$, there is a stony ridge on which are several small stone huts scarcely large enough for a man to enter. The roofs were formed of pieces of wood covered with a little grass. The walls are 3ft. high, and the room about 3ft. in diameter outside. They are built in the form of a horseshoe. The entrances to some had been closed and afterwards partially opened. It was conjectured by A. C. Gregory, who saw them, that, as the practice of carrying the bones of their deceased relatives from one locality to another prevailed with the natives of this part of Australia, it was probable that these erections had been used as temporary sepulchres.* In support of the statement that the bones of the dead are carried about, Captain Stokes relates a remarkable instance, which he saw near Port Essington, of affection in the wife of a native named "Alligator." The wife had treasured up the bones of her little one, and constantly carried them about with her as an object on which to lavish her tenderest emotions. At times she would put together these bones with a rapidity that showed a wonderful knowledge of osteology, and set them up that she might weep over them.†

On the Walker river, in lat. $13^{\circ} 28' 7''$, Mr. Lindsay says, in his "Explorations in Arnheim Land"—"We went a little out of our way to examine a farmework, about 5ft. high, covered with branches of trees, and found on the top the fresh body of a native. A few yards off was a mound like a grave with yamsticks alongside. Evidently the body on the frame was that of a chief, while the grave contained the body of his lubra (wife), who had been killed to accompany her lord and master to 'the happy hunting grounds.' Yamsticks and spears were lying there ready for them when they should awake."

There are a great many shell mounds on the banks of the Coorong, covered with mussel shells. They are from 4ft. to 10ft. high, under which the natives buried their dead at a time of great sickness.‡

Near Lake Lipson Captain Sturt saw many large mounds of sand covered with logs and bushes. He was told they were the

* A. C. Gregory, Explorations. + Stokes' Discoveries. ‡ Taplin, The Narrinyeri.

burial-places of blacks slain in a great battle fought between three tribes at that spot.

One mode of disposing of the dead is to clean the bones from all putrefying matter, and then to make them into a compact parcel, which is eventually dropped into the hollow trunk of some old tree. It was a very common practice amongst all the tribes to bury the dead in hollow trees, and to set fire to and burn the tree and body together. In some tribes when a child dies it is buried near to a young tree, round which alternate bands of black, red, yellow, red, and white are drawn, and a path to the grave marked out and cleared.

Breton, in his work, tells us that he saw the burial of certain men and women after a battle between two tribes on the Wollomi. He says—"Four men and two women of the Comleroy tribe were slain. The men were buried together, and at the place of burial the trees for some distance around, to the height of 15ft. or 20ft., were carved over with grotesque figures, meant to represent snakes, kangaroos, emus, opossums, &c., with rude representations of the different weapons they use." The women were buried outside this circle of marked trees, and nothing was left to show their resting-place.

On the 10th July, 1817, John Oxley, Lieutenant in the Royal Navy and Surveyor-General of New South Wales, when in E. long. 146° and lat. 34° S. on his exploratory journey, found a raised mound of earth which had somewhat the appearance of a burial-place. "We opened it, but found nothing in it except a few ashes, but whether from bones or wood could not be distinguished. A semi-circular trench was dug round one side of it, as if for seats for persons in attendance."

On the 11th of July on the same plain he found a tomb similar in form to that which had been seen on the 10th. It was a conical mound of earth about 4ft. high in the centre, and nearly 8ft. long in the longest part. He caused it to be opened, and exactly in the centre and deep in the ground he thought he perceived the remains of a human body, which had been originally placed upon sticks arranged transversely, but now decayed by time; nothing remained of what he took for the body but a quantity of unctuous clayey matter. The whole bore the appearance of great age, the semi-circular seats being nearly level with the rest of the ground, and the tomb itself being overgrown with weeds.

On the 29th July, in 146° E. and 33° S., he came upon a tumulus which was apparently of recent construction (within a year at most). It would seem that some person of distinction among the natives had been buried in it, from the exterior

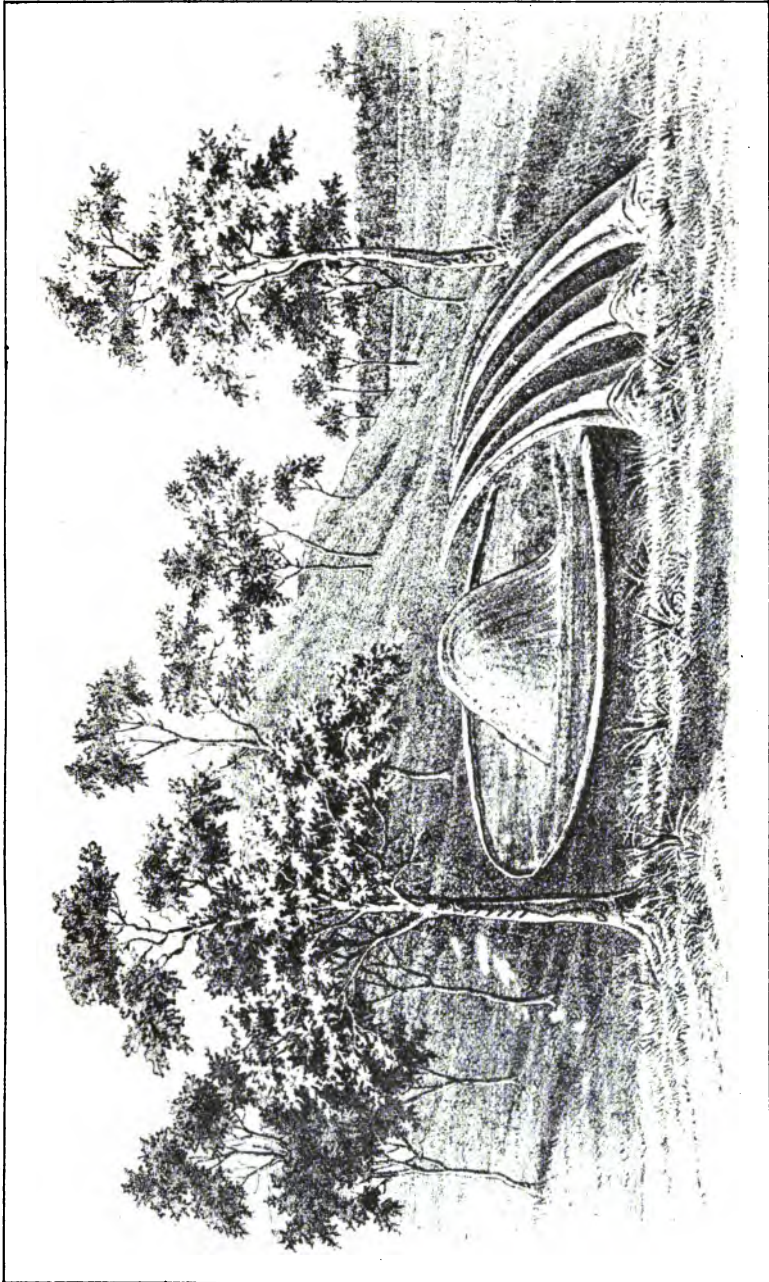
marks which had certainly been observed in the construction of the tomb and surrounding seats. The form of the whole was semi-circular. Three rows of seats occupied one half, the grave and an outer row of seats the other; the seats formed segments of circles of 50ft., 45ft., and 40ft. each, and were made by the soil being trenched up from between them. The centre part of the grave was about 5ft. high, and about 9ft. long, forming an oblong pointed cone. (Plate 32.)

He felt dubious as to opening this mound, fearing that he might be charged hereafter with wantonly disturbing the remains of the dead, or needlessly violating the religious rites of a harmless people. The whole outward form and appearance of the place was so totally different, however, from that of any other in use by the natives on the eastern coast, where the body is merely covered with a piece of bark and buried in a grave about 4ft. deep, that he was induced to open the tomb and examine its interior construction, thinking that the manner of interring the body might also be different.

On removing the soil from one end of the tumulus, at about 2ft. beneath the solid surface of the ground, he came to three or four layers of wood lying across the grave, serving as an arch to bear the weight of the earthy cone or tomb above. On removing one end of these layers, sheet after sheet of dry bark was taken out, and then dry grass and leaves in a perfect state of preservation, the wet or damp having apparently never penetrated even to the first covering of wood. His men were obliged to suspend operations as the corpse became extremely offensive to the smell, and he resolved to remove the next day all the earth from the top of the mound and expose the interior for some time to the external air before he searched farther. This his men did the next morning, when he found the body deposited about 4ft. deep in an oval grave 4ft. long and from 18in. to 2ft. wide. The feet were bent quite up to the head, the arms were placed between the thighs, the face was downwards, the body being placed east and west, and the head pointing eastward.

The remains had been carefully wrapped in a great number of opossum skins, the head bound round with the net usually worn by the natives, and also with the girdle. It appeared after being wrapped in these skins to have been placed in a larger net, and then deposited in the manner before mentioned. The bones and head showed that they were the remains of a tall and powerful man. The hair on the head was perfect, being long and black. The under part of the body was less decomposed, giving Mr. Oxley reason to think that it could not have been interred above six or eight months. Judging from the hair and eyes, the dead

Plate 32.



SURVEYOR GENERAL'S OFFICE, ARLAND, A. VAUGHAN, PHOTOGRAPHY.



man might have been between 30 and 40 years of age when buried. To west and north of the grave were two cypress trees, distant between 50ft. and 60ft. The sides towards the tomb were barked, and curious characters deeply cut upon them, in a manner which, considering the tools they possessed, must have been a work of great labor and time. Having satisfied his curiosity, the whole was carefully re-interred, and restored as nearly as possible to the condition in which it was found.

At Cambedyego, lat. 34° , long. 144° , is a tomb in the centre of a plot of bare ground of considerable extent, enclosed by three small ridges, the surface within the artificial area having been made very level and smooth, and the tomb constructed of poles and large sheets of bark entirely closed. On one sheet of bark being pushed on one side, a bed of rushes was seen on the floor, showing that it had lately been occupied. These rushes covered the grave itself. The widow of the occupant of the grave informed Sir Thomas Mitchell that her husband was buried there, and that the rushes were actually the nightly bed of a near relative of the deceased, who thus watched and attended the remains through the process of corruption. No fire had ever been made in the tomb, although the remains of several were seen on the ground outside.*

Mr. Archer, J.P., informed my friend R. E. Johns, P.M., that a short distance below the junction of the Darling with the Murray he saw many years ago a group of aboriginal huts of the usual beehive shape, and about 6ft. to 8ft. high, which he took at first for an ordinary native camp. The huts were carefully built of grass thatch on sapling frames, and, on examination, it was found that each was built over a grave and contained articles for the use of the dead. In those over the graves of males were spears, waddies, shields, &c., while those built over the graves of females contained nets and other articles used by them in life. In front of the small entrance to each hut were placed sticks arranged in readiness for kindling a fire. Mr. Archer, who understood and spoke several of the aboriginal dialects, inquired of some blacks at a neighboring camp the purpose of these preparations, and was told that the implements and weapons were for the use of the dead, and that the fuel was laid ready for their kindling to warm themselves when "they jumped up," that is, came to life again.

An aboriginal while under the care of the Protector of Aborigines in Victoria, named Bungeleen, had died, and a native of the Yarra tribe was asked to make a suitable design for a tombstone

* Sir T. Mitchell's Explorations, Vol. II., pp. 71 and 112.

to be placed over his grave. He furnished the picture, carved in wood, as seen in Plate 33, Fig. 1.

The artist of these carvings being dead, the natives of the present day are ignorant of the meaning of the figures, but they suppose that the men on the top are intended for friends who have been appointed to investigate the cause of the death of Bungeleen; that the figures of the birds and animals—emu, lizard, kangaroo, and a supposed wombat—indicate that he did not die for lack of food; and that the strange forms below the hollow band are those of moorooks, or spirits who have caused the death of Bungeleen by their wicked enchantments. The carving is excellent.*

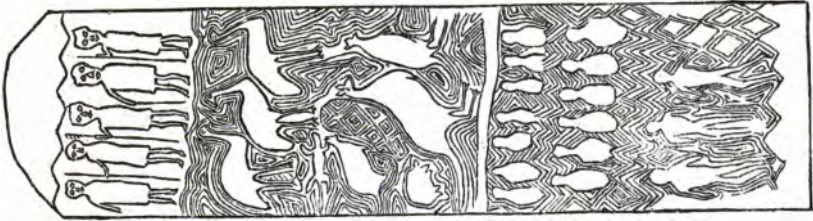
In long. $125^{\circ} 11' E.$, lat. $16^{\circ} 1' 45'' S.$, are two remarkable heaps of stones. The southernmost one was discovered by Captain Grey by "making an opening in the side and working on to the centre, and thence downwards to the middle. Five men provided with tools were occupied two hours in completing this work and in closing it up again. The stones were of all sizes, from one as weighty as a strong man could lift to the smallest pebble. The base of each heap was covered with rank vegetation, but the top was clear, from the stones having been recently deposited."†


There were also the remains of many different kinds of sea-shells in the heap that was opened. No bones were found in the mound, but the fine mould had a damp dank smell, and it was conjectured that the mound was at least 200 or 300 years old.

Amongst the aboriginal tribes bordering the outlet of the River Murray the body is wrapped in the garments worn during life and placed upon an oblong platform raised about 6ft. or 7ft. above the surface of the ground, where it is left to decay. In the Dieyerie tribe the relatives of the deceased eat the flesh of the body and then smear themselves with charcoal mixed with fat, making a broad black ring round the mouth. The female relatives make in addition two white stripes on their arms. The other members of the tribe daub themselves over with white clay as a sign of mourning. This white pipeclay is used universally as a sign of mourning. On the banks of the Murray river the female relatives plaster the head of the widow almost daily with this kind of clay for three months after the death of her mate, and in time the covering assumes, by these daily additions, the form of a round helmet.‡ (Plate 33, Fig. 2.) When the days of mourning are over this covering is removed by

* Brough Smyth's *Aborigines of Victoria*. † Sir George Grey's *Travels*, Vol. I., p. 227.

‡ This cut represents a native woman of the River Murray tribe, near Blanchetown, in mourning for her husband. She wears the white clay head-dress (if it may be so called) and has a white patch on the shoulder.



cutting the hair close to the head, when it comes off in one hard and compact mass; it is then placed on the grave, which has been sheltered from the weather by the erection of a kind of hut of boughs so closely interwoven together as to be almost impervious to the weather. On the raised mound of the grave the clothing used by the deceased whilst living is spread out, and both it and the interior of the hut are carefully kept for many years afterwards. I weighed four of these head coverings found on a grave opposite to Blanchetown, on the Murray, and found two of them drew the scale at a little over 12lbs.; the others were 13lbs. and 14lbs. respectively. Some of the tribes light fires near the graves, the firesticks being placed in this form , the burning ends being placed together.

In some of the tribes on the Murray the body of the deceased is rubbed over with a compound of red ochre and grease, all the apertures of the body being securely closed; it is then set up in a sitting posture on a small platform in the camp, under which a fire is kept burning night and day until the bones are entirely denuded of the flesh. The relatives eat and sleep under the putrefying mass. During the time it is thus undergoing the smoking process the female relatives relieve each other in weeping and wailing in front of it; this goes on for many days. The hair of the dead man is spun into cord, made into a head-band, and worn by the nearest male relative.

Along the shores of Lake Alexandrina, near the sea, are some large mounds of earth. Some few years ago one of these was opened, and found to contain scores of human skeletons arranged in rows. On several parts of that coast shell mounds are to be seen heaped over the bodies of the dead. On the Prince Regent river Captain Grey found a complete hill of broken shells which it must have taken some centuries to form, as it covered nearly half an acre of ground, and in some places was 10ft. high.* Captain King also found a curious mound constructed of shells heaped together measuring 30ft. in diameter and 14ft. high. This was on the North-West Coast.†

Mounds of stones covering what are supposed to be native burying-places are also found near the coast at Hanover Bay.

At Burial Reach, on the Flinders river, is an open glade; in the midst of it rises a tree, the branches of which were laden with a singular looking bundle or roll of pieces of wood.‡ It looked almost like the nest of some huge bird. On approaching, the

* Grey's Explorations, Vol. I.

† Captain King's Survey, Vol. I.

‡ Captain Stokes' Discoveries, Vol. II.

unpleasant smell indicated its purpose and contents, and on being examined it was found to contain the decaying body of a native. Within the outer covering of sticks was one of net, with an inner one of the bark of the papyrus tree enveloping the corpse. Some weapons were deposited with the body and in close contact therewith.

At Wizard Peak, near Champion Bay, a native grave* was seen, in the form of a circular pit 3yds. in diameter, and filled within a foot of the surface with sand carefully smoothed over. Small sticks—some with red horizontal marks painted on them, others scraped, with the shavings tastefully curled round—ornamented the edge of the grave, and a large semi-circular fence fronted the south-east side. Several deserted huts were close by. Similar graves are found near Perth, on which are placed green boughs, and on these are deposited the spears, knife, and stone hammer and tomahawk, together with the ornaments worn in life; and circles and other ornamentations are carved by the mourners on the nearest trees. When a female is interred her implements are deposited in the grave with the body.

Booby Island the natives appear to use as a cemetery. On the north side, on a small sandy point, a large grave exists covered with turtle backs, which on being opened was found to contain several skeletons.

On the Victoria river, lat. 14° S., long. 130° E., is a native grave covered with large flat stones to the height of about 3ft.*

Burial-places are frequently ornamented by figures and designs that are cut in the turf.

In the northern parts of Victoria the tribes erect a funeral pile and place the dead body on it, accompanied with the prescribed rites and formalities. The pile is then lit, and the body is consumed. Some, however, deposit their dead in caves, whilst others lay them in stone-lined trenches dug in the ground with other bodies already there.

FUNERAL CEREMONIES.

In the *Central Australian* newspaper, dated the 30th January, 1875, the following descriptive account of an aboriginal funeral may be interesting to the reader:—"Towney, four years attached to the Bourke police as a tracker, died on Wednesday from injuries received by a kick from a horse, and was buried on the following day with all the ceremonies of his tribe. Soon after death the body was covered with gum leaves and rolled in an

* Stokes' Discoveries, Vol. II.

opossum rug and blanket. His wife lay with her head resting on the corpse, and one of the oldest men lay in a similar manner. All were silent, and remained so for twenty-four hours. When preparations were made for the burial, two widowed gins, with hair cut short and heads covered or plastered with pipeclay, took prominent parts in the arrangement. 'The oldest men carried the body to the grave (some half-mile from the camp) on a pole, one end resting on each shoulder and passed through the cords which secured the blanket and opossum rug on the corpse. A grave was dug in the shape of a well about 4ft. 6in. deep. When it was ready the bier was lifted by two old warriors, and at this moment a pitiful cry was raised by all the blacks. After silence was partly proclaimed, an old warrior named Kangaroo, with a small branch of a gum tree in his hand, commenced addressing the corpse with his head close to the body. He continued doing this incessantly for twenty minutes, and was answered by an old man in a stooping posture on the opposite side of the bier. Two men in the grave laid an opossum rug round it to receive the remains, which were lowered down amidst cries of every black present; gum leaves were then thrown over the body. And now comes the revolting part. Two men adjusting the body in the grave stand up; one takes a boomerang, the other stoops and receives a blow which draws blood freely. The boomerang is then handed to the other; he then strikes, and both bleed copiously over the corpse. They are then removed, and three men go into the grave and strike each other till they bleed, bowing down their heads the while. One throws himself down, and with difficulty is removed. Three others repeat the same thing; these men all bled freely, and in submission, till the grave was covered with blood. The bleeding men now retired in sadness under trees; the gins applied gum leaves till the blood was stopped, meanwhile keeping up an incessant cry. They submit, it seems, to their heads being cut in order to strengthen the deceased in the grave and assist him to rise in another country—not, as is generally supposed as a white man, but as a black. They then carefully covered in the grave and built a sort of gunyah over it, with a bush fence around it. They swept round all the old graves and returned to camp, leaving the wife of the deceased and the widowed gins to mourn."

At Hawker's Creek, in the Ashburton Range, Stuart found stuck up in a tree what appeared to be a piece of wood about 2½ft. long, sharp at both ends, broad at the bottom, and shaped like a canoe. Having pulled it down "he found it was hollow. On the top of it were placed a number of pieces of bark, and the whole bound firmly round with grass cord." Having removed the covering he

found within "the skull and bones of a child." He says:—"It is exactly the model of a canoe, and the finest piece of workmanship I have ever seen executed by the natives. It was about 12in. deep and 10in. wide, tapering off at the ends. Small lines were cut along both sides of it. It had been cut out of a solid piece of wood with some sharp instrument." He had this carefully redone up and replaced where it was found.

On the Harris Creek, lat. 130° 45' 16", which runs through a well-grassed plain, are some patches of dry scrub, especially on the edge of the plain. Amongst these are several shell mounds about 2ft. in diameter and the same in height, containing the bones of natives, and are evidently a great burial-place.

James Backhouse, a Quaker missionary, visited Australia in 1835-6, when he saw, near the junction of the Bell and Macquarie rivers, the grave of a native. On one side, and extending a third part of the way round it, there was a trench formed of two low banks of earth, and on the trunks of some adjacent trees were inscribed parallel lines, some undulating and others forming imperfect ovals.

Mr. Bridgman, residing in Mackay, in Queensland, mentioned, in a letter to Mr. Brough Smyth,* that on one occasion he heard a funeral oration over the grave of a native warrior which lasted more than an hour. The corpse was borne on the shoulders of two men, who stood at the edge of the grave, and he noticed that during the discourse the orator spoke to the deceased as if he were still living, and could hear his words.

Burial in this district appears to be only a temporary mode of disposing of the body, as, after it has lain in the grave for three months, it is disinterred, when the bones are cleaned and packed in a roll of pliable bark, the outside of which is painted and ornamented with strings of beads and the like.

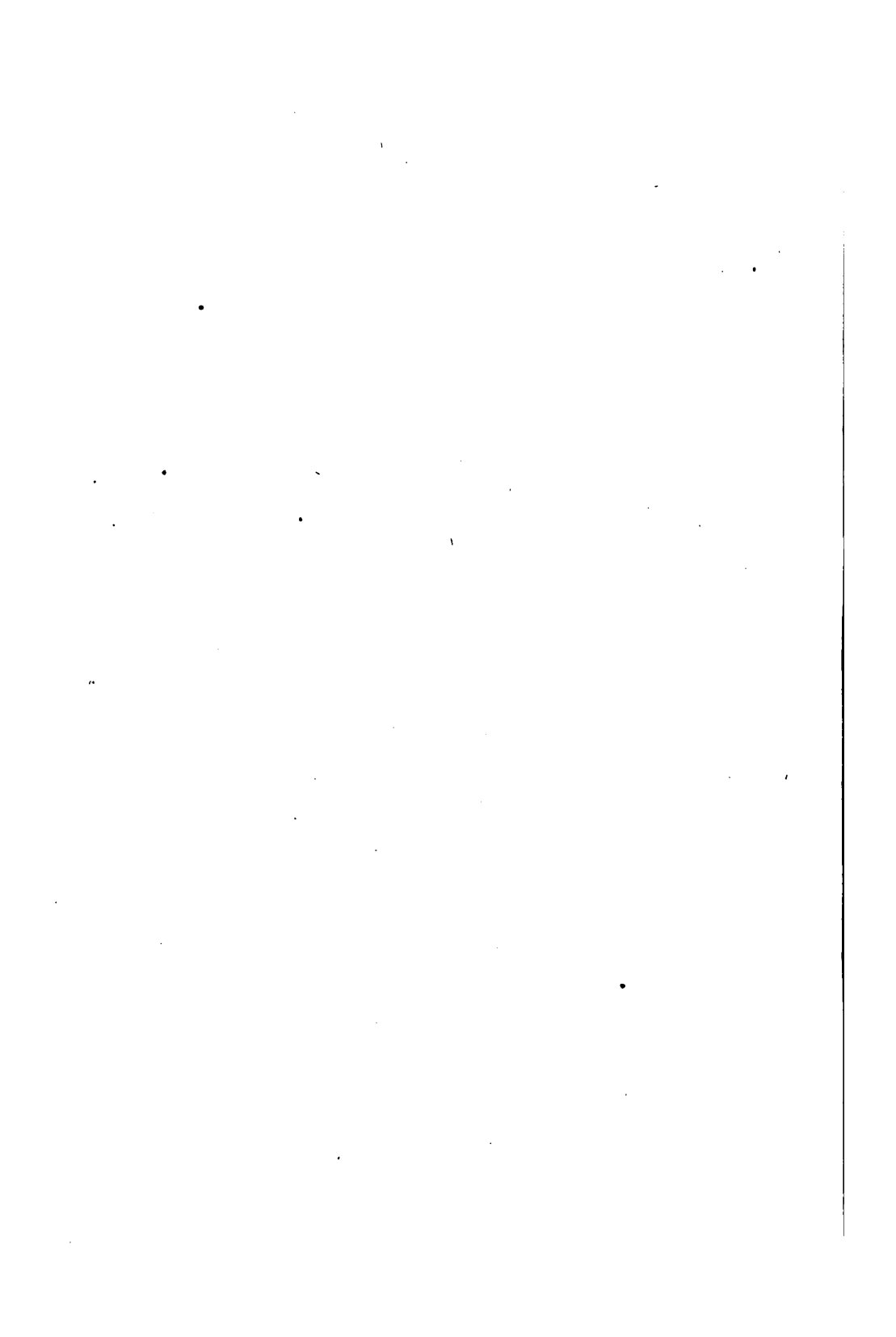
All the methods employed by the Australian blacks in disposing of their dead are curious and full of interest, for they seek to express by many ingenious devices their respect and affection for their deceased relatives and friends. On the seacoast of Encounter Bay, in the Cape Otway district, and on the western plains you can still see the remains of rude platforms on which the natives finally placed their dead. (Plate 34.) In the mounds of the River Murray, and also in the shell heaps of the north and south, are found the mouldering bones of their departed warriors. Under the umbrageous native willows and pines of the network of rivers of Riverina and the north and west are still to be seen these mounds which they had raised over the relics of their long-mourned-for dead. The bodies

* The Aborigines of Victoria, Vol. I.

Plate 34.



SURVEYOR GENERAL'S OFFICE, ADOLPHUS A. VAUGHAN, PHOTOGRAPHED



of young children and persons killed by accident were usually placed in a hollow tree. The space was cleared of dead wood and well swept, the bottom being lined with leaves, and the whole covered with a piece of bark. Sometimes a rude coffin was made by stripping a young sapling of its bark and wrapping the body in it.

Many tribes, so soon as a man is dead, bury the body and all the property he had with it, whilst in others the hand of the dead is cut off, and this with everything he had is preserved as relics and mementos of one whose name is never again mentioned in the tribe. The Goulburn blacks made graves differently from those of the Victorian natives. They dug a grave about 5ft. deep, and from the bottom of it they made an excavation in a horizontal direction about 3ft. in length and 2ft. 6in. in height. A bed composed of leaves was made in the cave or drive, and the body placed on it; the spaces between the sides and it being packed with leaves. The mouth of the cave was closed with a door formed of a thick piece of bark, and fastened securely in its place by stakes driven into the ground, and the grave was then filled in with earth. At the end farthest from the body and at right angles to it was raised a small tumulus in the shape of a shield.

In 1851, near Tarn Creek on the Lower Murray, an aged warrior died, and was buried in a sandhill. A mound was raised and smoothly coated over with a layer of wet clay. Around this a circle of spears was raised, and by each spear sat a young warrior; other natives formed an outer circle, each sitting by his spear; and in an outside circle sat the women—all of them as silent as the dead they had just before interred. Thus they sat patiently watching the clay drying in the fierce noonday sun until it cracked. The old men then drew nigh, and, having ascertained the direction of the main fracture in the clay, they indicated the path the warriors were to take in order to find the person who had practised sorcery on, and so had killed, the deceased.

In Western Australia the graves extend due east and west. They commence by digging with their sticks and hands several holes in a straight line, and as deep as they possibly can. They then unite their sticks and throw out the earth from the bottom of the pit thus made. All the white sand is thrown carefully into two heaps, one at the head and the other at the foot of the hole they are digging, whilst the dirty or discolored sand is thrown into two other heaps, one on each side. The grave is generally only wide enough to admit the body of the deceased.

During the process of digging the old men carefully watch the soil as it is thrown up, and if an insect is dislodged they regard with intense interest the direction it takes. Whichever way it

runs affords an incontrovertible proof that the natives of another tribe living in that direction are guilty of the death of their relative or friend.

When the grave is completed they set fire to some dried leaves and twigs; then, throwing them in, they soon have a large blaze in the bottom of the grave. The body is then lowered into it, so soon as the fire has died out, fresh leaves having been thrown in on which to place the body, the face being, according to custom, turned towards the east. The women, grouped together, sing their mournful songs, broken now and again by heavy sobbing, the men meanwhile placing green boughs upon the remains until the grave is nearly filled. Piercing shrieks are given by the women as the chant dies away, some of the elder females lacerating their scalps and cheeks with sharp bones until the blood runs down their furrowed cheeks. Cross pieces of wood of considerable size are then fixed in the opposite sides of the grave, which is again covered by green boughs, when the earth from the two sides is thrown in until the grave is finished.

The men having finished their work, the women come with bundles of the grass tree tops which they have gathered, and place them on the top of the central mound, so as to give it a green and attractive appearance.

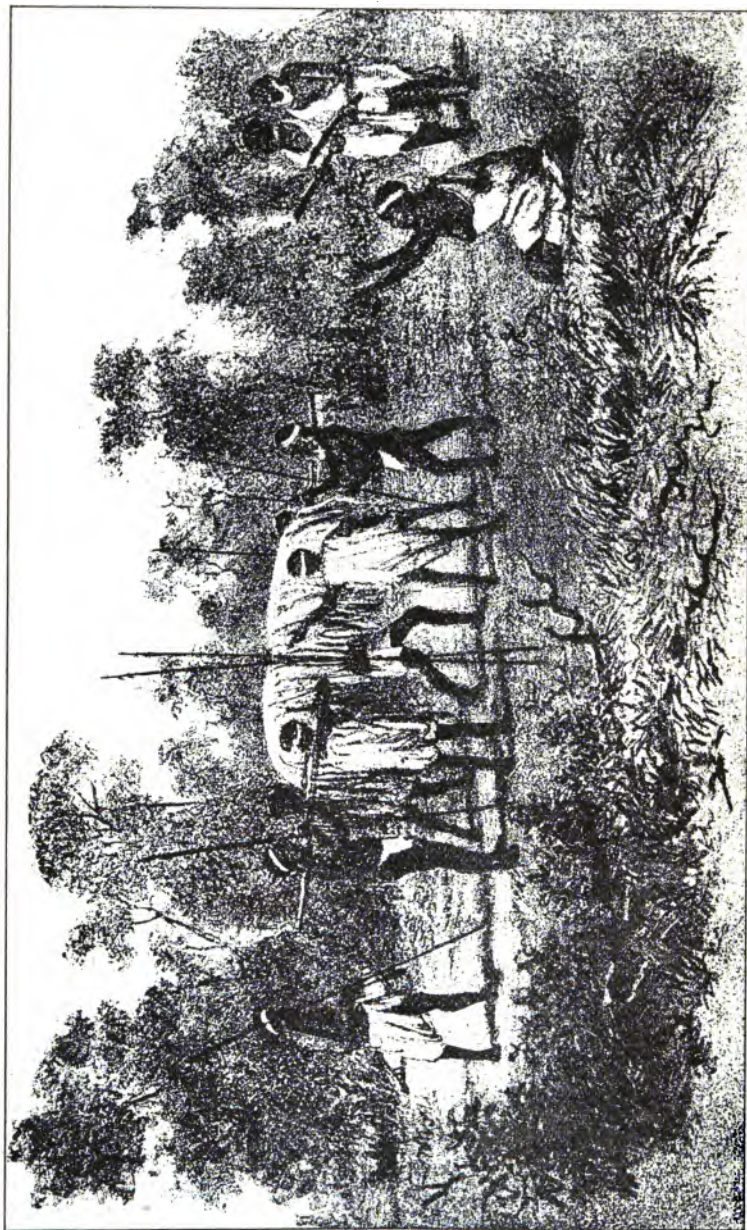
They then construct a hut over the grave, and one of the male relations gets into it and says "*Mya balung einya ngin-na*," literally, "I sit in his house."

In some of the districts in this part of the continent the men cut off portions of their beards, and, singeing these, throw them upon the dead body; in other parts the men cut the beard off the dead native, and, singeing it in the fire, rub both themselves and the body with it.

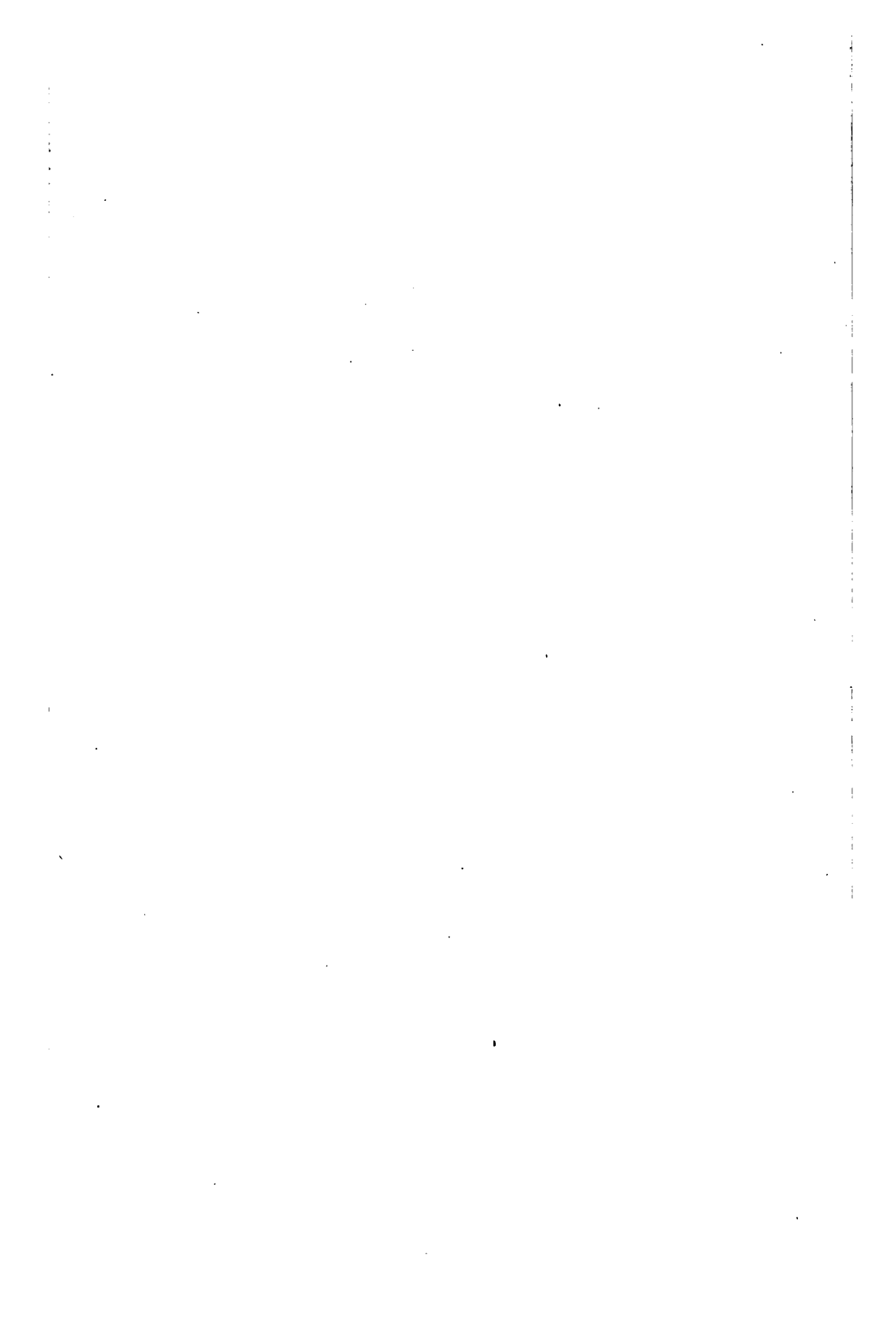
At Fraser Island, Queensland, when an old man, woman, or a young girl dies, if they are not fat they are rolled in a rug or blanket and buried in a grave about 4ft. deep. When, however, a young man dies, they skin him; then cut off the flesh, which is placed on their spears to dry; the bones are then taken to pieces, the large ones being cut asunder and the marrow taken out. The various parts—skin, flesh, and bones—are finally distributed among the kinsfolks and carried about by them in their baskets or nets. In one or two isolated tribes the burial of a native, especially if he has been a great warrior, is in the bed of a running stream of water. Preparatory to the grave being dug the stream is diverted, and immediately it has been filled in the water is turned into its natural channel, and all traces of the grave are for ever lost.*

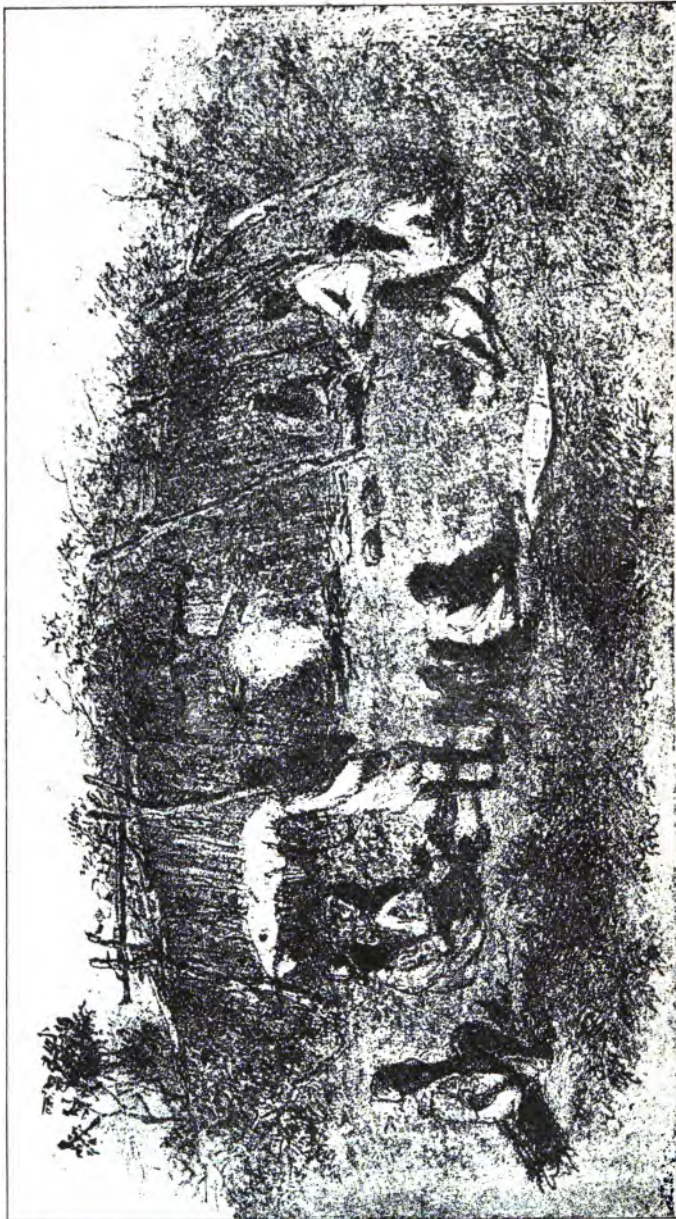
* Aborigines of Australia, Vol. I.

Plate 35.



SURVEYOR GENERAL'S OFFICE, ADELPHI, AUSTRALIA. Photo 24/10/1901.





SURVEYOR GENERAL'S OFFICE, ADELAIDE, A. VAUGHAN, PHOTOGRAPHED.

J. White, Surgeon-General, New South Wales, says in his "Journal of a Voyage to New South Wales," published in 1790, page 174:—"One of their graves which I saw opened. the only one I have met with, contained a body which had evidently been burned, as small pieces of bone lay in the bottom of it. The grave was neatly made and well covered with earth and boughs of trees."

NATIVE INQUEST.

The following illustrations will serve to show the manner of dealing with a dead native in South Australia. After death an inquest is always held by the sorcerers and relatives of the deceased in order to discover the cause. A shallow trench is dug about 2in. or 3in. deep surrounding the corpse, lines are drawn to an aperture in the trench made by some insect or worm, and in whatever direction this line may point the sorcerers direct the avengers to go, to return with the kidney fat of the murderer of the deceased as a peace offering to his troubled spirit. Plate 35 shows the manner in which the inquest is held; and Plate 36 represents the drying of the dead body prior to its burial either in the earth, or on a platform, on a stage, or in the branches of a tree. The nearest relatives are here seen seated round the fire with the signs of mourning on their bodies, whilst the body is being slowly dried by the heat of the fire and the smoke.

The Seymour tribe (Victoria) buried its dead in graves dug east and west, the corpse facing eastwards and protected from the earth by a roof of saplings. The remainder of the depth of the grave was then filled in, the superfluous earth forming a small mound, around which the outline of an Eliman (shield) was drawn by scraping away the grass and surface soil about the mound. Around all was a light brush fence. For some months after burial, at certain phases of the moon, four small fires are lighted, two on each side of the grave.

At Shepparton, also in Victoria, a small shaft, about 4½ ft. long by 2 ft. wide, was sunk in a sandhill, and a chamber driven from one end of it, into which the corpse (an incision having been made across the back of it to render it flexible) pressed into the most compact form, with the knees against the chest and the heels against the buttocks, was forcibly thrust, having been previously lashed tightly with bands of fibrous bark. The front of the chamber was then closed with pieces of wood, and the shaft filled in with the sand which had been dug out. It is not known whether any weapons or implements were buried with the dead, nor have any been found in such places of sepulture.

At Numurkah, in Victoria, during 1889, three skeletons were disinterred in a sandpit near the Pound, and about a mile from the township. The Police Magistrate (R. E. Johns, Esq.), from whom I had the statement, went with the police, and he discovered two more. They were all buried about 4ft. deep, on a hard stratum of sand and concrete, without any covering; nor could he, after careful search, discover any implements of wood or stone, or trace of such. The bodies were found in the usual position, with the heels doubled up backwards and the head on the knees, and were laid on the left side with the head pointing generally towards the east, though not all exactly in the same direction. Some were of considerable age, but one was more recent. A considerable space of ground besides that occupied by the bodies had been disturbed around them, but was as void of relics as the immediate neighborhood of the skeletons. The remains appeared to have been laid naked in the holes, and the earth thrown back on them.

My friend Mr. Johns (referred to above) informed me that near Mansfield, in Victoria, cremation was practised. He said that a gentleman named Ballantine was walking in the ranges with a blackfellow when they came on the ashes of a great fire, which had been raked up into a low mound. Mr. Ballantine stirred the ashes with his foot, and exposed some calcined human bones. He asked the blackfellow how they came there, and was surprised to receive a surly answer, "What for you yonda like o' that?" and to observe a savage scowl on the man's face. Mr. Ballantine did not press the question, but made inquiries later on amongst the blacks, from whom he learned that several bodies had been burned there. In New South Wales also, amongst the tribes near to Sydney, the practice of cremation was always followed at the time of the foundation of the colony.

The French under Captain Baudin, in 1802, visited Tasmania, and Peron, the historian of these voyages, shows in the atlas to the work "*Voyage Aux Terras Australes*" a representation of some native tombs they discovered on Maria Island, off the east coast of Tasmania. Two of the tombs were sheltered by huts built of long strips of bark. (Plate 37.)

J. McDouall Stuart, in the diary of his overland journey to Adam Bay from Adelaide, states that "on the Frew river he saw a large native grave, composed of sand, earth, wood, and stones of a circular shape, about 4½ft. high and 20yds. or 24yds. in circumference."

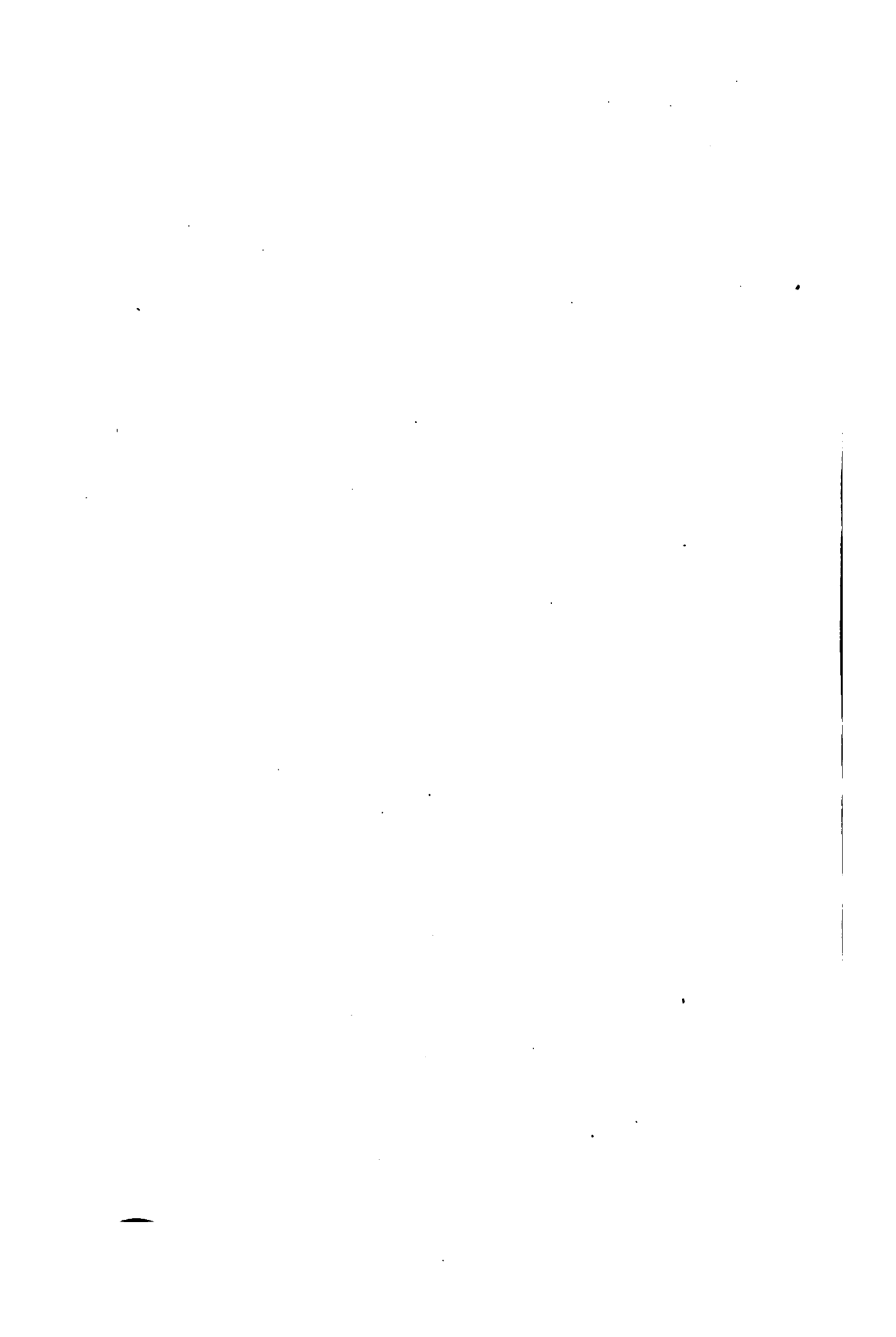
Mr. Hawdon, in his overland journey in 1838 with cattle for Adelaide, also saw a native burial-place, on the banks of the Upper Murray, about thirty miles below the junction of the Murrumbidgee,

Plate 37.



SURVEYOR GENERAL'S OFFICE, AGULADE, AMERICAN, Photo Zollographer.





where three natives had been interred. Over each grave was a low pile of thick sticks, enclosed within a small house of conical shape, thatched with dry reeds, and the whole surrounded by three distinct and very neat paths, describing a sort of oval. Mr. Hawdon further adds the Murray natives burn gypsum and fossil sea shells to make lime, with which they paint themselves when going to fight, or to hold a corroboree, or for mourning. They make caps of this lime, and when the period of mourning is over the caps are placed on the grave. (See Plate 28, Fig. A.) These skull caps he saw near Lake Bonney inside a rough round house made of limbs of trees neatly thatched with reeds, within which building someone had been buried.

Some other burial grounds contained about thirty graves, each housed over and surrounded by an oval footpath kept with much care and very neat.

Captain Keppel in his "Visit to the Indian Archipelago" in the ship *Mæander*, says:—"When a native dies at Port Essington he is wrapped up in bark and bound round with cords. A stage is made, by placing two forked branches, 8ft. or 10ft. in height, upright in the ground, distant from each other about 5ft. or 6ft., and facing the fork of a tree. A piece of wood is placed transversely, resting on the forks of the upright branches. A number of branches are then placed longitudinally, the ends resting in the fork of the tree and on the transverse piece. The whole slopes at a considerable angle, the uprights being shorter than the fork of the tree. This is done to prevent the lodgment of rain water. Upon this inclined stage the body, wrapped in its coffin of bark, is laid, and there it remains.

Sometimes there is no stage, and the body, rolled up in a bundle, is laid upon, or suspended from, the branch of a tree. These places of deposit are avoided by the natives; they think evil spirits haunt them."

At a meeting of the Victorian Branch of the Royal Geographical Society of Australasia, held at the Athenæum, Melbourne, on the 10th of September, 1891, Mr. Joseph Bradshaw (referred to before) read a paper on his journeyings and explorations in the north-western portion of this continent in the early part of the year (1891). He says:—"About noon on the 31st March we struck a fine stream of sweet, clear water, about 30ft. wide, its banks densely fringed with palm trees. Its course trended to north-west, and, though it was traversed for a considerable distance with a prismatic compass, we could not ascertain whether it was a tributary of the Roe river or the Prince Regent. At a place on this creek where we camped, great masses of sandstone rocks were scattered through the forest

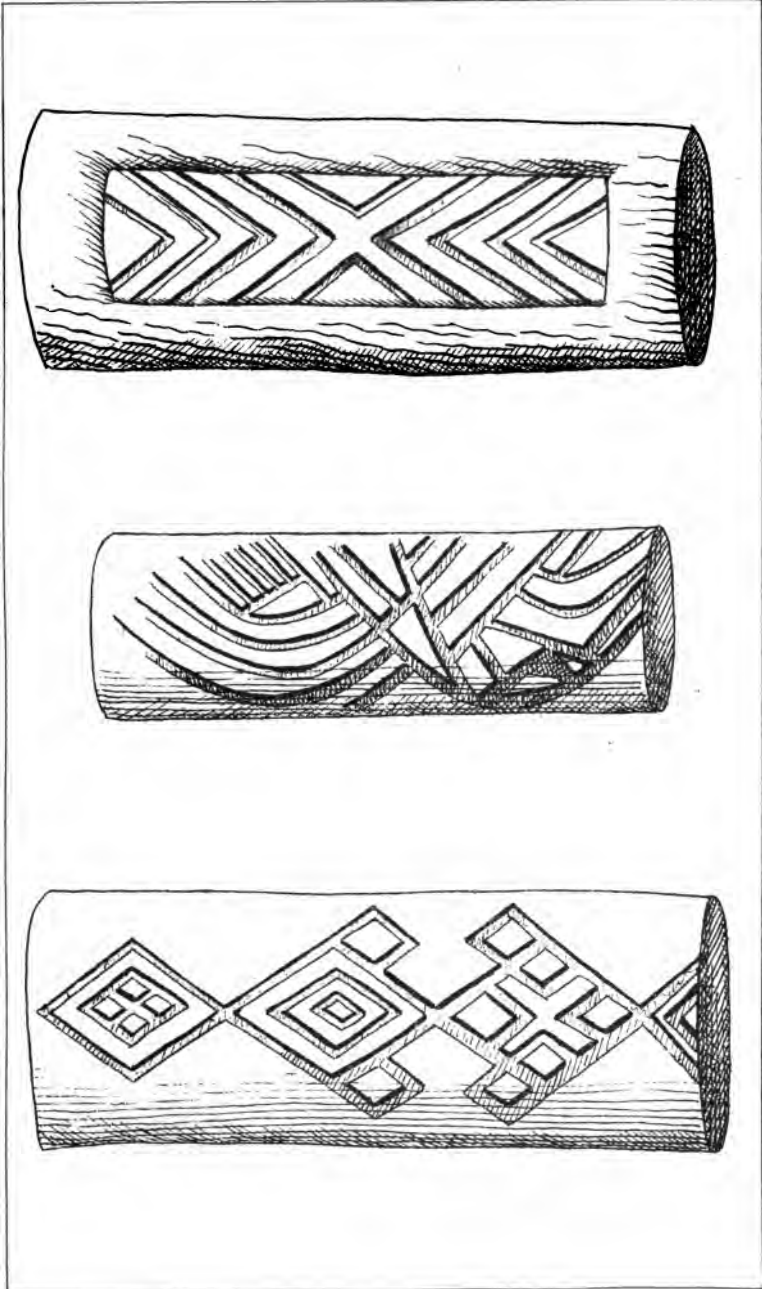
for several miles, assuming all manner of fantastic shapes. In many of these rocks natural cavities occurred, which the natives had made use of as a resting-place for remains of their dead. In most places the bones were placed compactly together, with a few large flat stones laid on the top of them, evidently to prevent the dingoes from scattering them. From the number of these natural mausoleums that were observed, the stream was named Sepulchre Creek."

This place was west of the Drysdale river.

In the "Narrative of the Surveying Voyage of H.M.S. *Fly*, 1842-1846," written by Mr. J. B. Jukes, naturalist to the expedition, page 149, describing a native grave on the mainland, near Cape York. He says—"Near the beach, in the centre of the bight, we found a singular native tomb, apparently quite recent. Round a central mound of sand there had been a broad ditch or hollow scooped out and swept quite clean for several yards in width. The mound was of a quadrangular form, 8ft. long, 4ft. wide, and 3ft. high. A stout post stood upright at each corner, and the sides were ornamented by rows of the ribs of the dugong placed regularly along them. Between the two posts near the sea a long stick had been inserted, ornamented with feathers and streamers of grass, and fastened to the posts by other cross sticks similarly ornamented. On each post was either a large shell or the skull of a dugong, and on the grave were several other dugong skulls and shells of the *Naut-lus pompilius*. All these, as well as the posts, were smeared with red ochre."

Amongst the American Indians, especially the Canadian tribes, it was the custom to bury a dead warrior's weapons with him in his grave, and there to set up a post on which was carved the totem of his tribe and the emblems of the dead. Other instances could be adduced among the chiefs of the Chippewa tribe in America.

It has always been the custom amongst the aborigines of Australia to carve the trees surrounding the grave with marks indicating the actions of the dead man through life in a manner similar in all respects to that prevailing amongst the American natives. Indeed, in their very mode of burial the customs followed assimilate most closely to the aborigines of America, whether in burial in tombs, in cleansing the bones from the flesh and re-interring them, or in exposing the corpse on raised platforms. (Plate 38.)



CHAPTER VI.

DWELLINGS.

The native dwellings vary as widely as the erections in the towns of a civilised country. Some are merely shelters from the hot sun, whilst others are comfortable structures suitable for a family of six or eight persons.

At Mullet Bay Captain King, in 1818, found "a native encampment which consisted of three or four huts of a different description from those previously seen; they were of a conical shape, not more than 3ft. high, and would conveniently accommodate one person. They were built of sticks stuck in the ground and united at the top, supporting a roof of bark, which was covered with sand, so that they looked more like sand hillocks than human habitations. The opening was at one side, and was about 18in. in diameter, but could be made smaller by the person inside heaping up the sand before it. At Port Macquarie the huts were more substantially erected, and more useful as dwellings than any to the southward, and would contain from eight to ten persons; they were thatched over and formed a dome, with the opening on the land side, so that they were screened from the cold sea winds.

"On an island near Halifax Bay there are some native huts of a circular shape. They are constructed of sticks stuck in the ground and arched over, so as to give support to one another, the whole being covered with dried grass and reeds. They will not accommodate more than two persons each. One of these huts is of a more elliptical shape than the others and of larger dimensions, and is evidently used for the general assemblage of the men—a kind of council chamber in which matters affecting the tribe are discussed and dealt with." At Careening Bay, in 1820, Captain King found on the beach a hut built merely of strips of bark bent over to form a shelter from the sun. There were, however, on the hill, some of larger and better construction, but no two of them alike. One was erected thus—"Two walls of stone, piled one upon another to the height of 3ft., formed the two ends, and saplings were laid across to support a covering of bark or grass. The front, which faced the east, was not closed; but the back, which slanted from the roof to the ground, appeared to have been covered with bark like the roof."

On the River Gwydir the deep and extensive hollows formed by the floods compelled Sir T. Mitchell* to travel southwards for several miles. In crossing one hollow he passed among the huts of a native tribe. He says—"These were tastefully distributed amongst drooping acacias and casuarinæ; some resembled bowers under yellow fragrant mimosæ, some were isolated under the deeper shades of casuarinæ, while others were placed more socially; the roofs were conical, and from one side a flat roof stood forward like a portico supported by two sticks. Most of them were close to the trunk of a tree, and they were covered not, as in other parts, by sheets of bark, but with a variety of materials, such as reeds, grass, and boughs. The interior of each looked clean, and gave some idea, not only of shelter from the weather, but even of comfort and happiness. They afforded a favorable specimen of the taste of the gins, whose business it usually is to construct the huts. This village of bowers also occupied more space than the encampments of native tribes in general; choice shady spots seem to have been an object, and had been selected with care." The same explorer relates that there were permanent huts on both banks of the Darling river, the first of the kind he had seen, large enough certainly to contain a family of fifteen persons, and in one there had been recently a fire. They were semi-circular, and constructed of branches of trees, well thatched with straw, forming altogether a covering of about a foot in thickness, and were well able to afford a ready and dry shelter in bad weather. In this respect of forethought the inhabitants of that part of the Darling may be considered somewhat before their brethren further eastward. These permanent huts seemed also to indicate a race of more peaceful and settled habits; for where the natives are often at war such habitations could neither be permanent nor safe. At a camp near Mount Arapiles, in the western part of Victoria, not far from Portland, he says:—"On a salt lake we noticed some of the native huts, which were of very different construction from those of the aborigines in general, being large, circular, and made of straight rods meeting at an upright pole in the centre; the outside had been first covered with bark and grass, and then entirely coated with clay. The fire appeared to have been made nearly in the centre, and a hole in the top had been left as a chimney. These places seemed to have been in use for years as casual habitations."

Sir George Grey, when in Hanover Bay, saw that natives had been there within a day or two before his arrival in 1837. He followed their traces, which were quite recent, across a dry water-course till they led to a hut built of a framework of logs of wood,

* Explorations in Australia.

and in shape like a beehive, about 4ft. high and 9ft. in diameter. This hut was of a very superior description to those he found afterwards to be generally in use in south-western Australia, and differing from them altogether, in that its low and narrow entrance rendered access impossible without stooping. With the exception of this aperture the hut was entirely closed. And when in lat. $15^{\circ} 49'$ S., long. $125^{\circ} 6'$ E., on a tongue of land between two streams, he found a native hut which differed from any seen before by its having a sloping roof. In remarking on the habits and manners of the aborigines Sir George Grey says:—"Their huts, of which I only saw those on the seacoast, are constructed in an oval form of the boughs of trees, and are roofed with dry reeds. The diameter of one, which I measured, was about 14ft. at the base. At one place a large party of natives appeared to have lived for some time, twelve bark beds having been left in a circle round a fire."

Captain Stokes, when in Sunday Straits, says:—"The natives in all parts of the continent alike seem to possess very primitive notions upon the subject of habitation; their most comfortable wigwams hardly deserve the name. Not even in the neighborhood of English settlements are they beginning in any degree to imitate our European notions of comfort. Among these northern people the only approach to anything like protection from 'the skiey influences' that I could discover was a slight, rudely-thatched covering placed on four upright poles between 3ft. and 4ft. high." Then he goes on to say:—"As we required another station on the west end of Bathurst Island, I arranged that we should pass the night in a small cove near its south-eastern extreme. Here we found several native habitations of a totally different and very superior description to any we had hitherto seen in any part of Australia; they bore a marked resemblance to those I had seen on the south-east coast of Tierra del Fuego, which was so striking as to be remarked even by some of the boat's crew who had belonged to the *Beagle* in her wanderings on that stormy coast. Stout poles from 14ft. to 16ft. high formed the framework of these snug huts, for so indeed they deserve to be termed. These were brought together conically at the roof. A stout thatching of dried grass completely excluded both wind and rain, and seemed to bespeak the existence of a climate at times much more severe than a latitude of $16^{\circ} 6'$ S. would lead one to anticipate. The remains of small fires, a well-greased bark pillow, a head ornament of sea-birds' feathers, together with several other trifling articles, strewn upon the floors of these wigwams, proved that they had been very recently inhabited." At Cape Hotham he also saw some native

huts, which reminded him of one he had seen near the north-west part of King's Sound. These huts did not exceed 5ft. in height, nor were they so substantially built. They were, however, well thatched with the same kind of coarse grass. The entrances were carefully closed, except in one instance, where the aperture was so small that it was with difficulty he could enter. At Van Diemen's Inlet, in the Gulf of Carpentaria, he found the habitations of the natives of a more substantial nature than they expected, being oval-shaped huts thatched with coarse grass. On the Albert river he saw some native huts built of sticks and neatly plastered over, with doorways so narrow that none of the party were able to enter them.

Captain Sturt, in 1845, passed several native huts shortly after leaving Cooper's Creek that were differently constructed from any he had seen. They were all arched elliptically by bending the bough of a tree at a certain height from the ground, and resting the other end on a forked stick at the opposite side of the arch. A layer of boughs was then put over the roof and back, on which there was a thick coating of red clay, so that the hut was impervious to wind or heat. These huts were of considerable size, and close to each there was a smaller one, equally as well made as the larger. Both were left in perfect repair, and had apparently been swept prior to the departure of their inmates. At a little distance from the creek to the north-west, upon a rising piece of ground, and certainly above the reach of the floods, there were seven or eight huts, very different in shape and substance from any he had seen. They were made of strong boughs fixed in a circle in the ground so as to meet in a common centre. On these there was, as in some other huts, a thick seam of grass and leaves, and over this again a compact coating of clay. They were from 8ft. to 10ft. in diameter, and about 4½ft. high, the opening into them not being larger than to allow a man to creep in. They also faced the north-west, and each had a smaller one attached to it. Like those before seen they had been left in the neatest order by their occupants, and were evidently used during the rainy season, as they were at some distance from the creek, and near one of those bare patches in which water must lodge at such times. On the south side of the Stony Desert Captain Sturt found a village of nineteen huts, but without any signs of recent occupation.

Speaking of the natives in the interior, he says:—"The native habitations, at all events those of the natives of the interior, with the exception of the Cooper's Creek tribe, had huts of a much more solid construction than those of the natives of the Murray or the Darling, although some of their huts were sub-

stantially built also. Those of the interior tribes, however, were made of strong boughs, with a thick coating of clay over leaves and grass. They were entirely impervious to wind and rain, and were really comfortable, being evidently erections of a permanent kind to which the inhabitants frequently returned. Where there were villages these huts were built in rows, the front of one hut being at the back of the other, and it appeared to be a singular but universal custom to erect a smaller hut at no great distance from the larger ones, but I was unable to detect for what purpose they were made, unless it was to deposit their seeds, as they were too small even for children to inhabit."

Just before Mr. Winnecke camped at the Herbert river he saw a number of natives, and on going towards the encampment he found about forty or fifty huts of a superior construction, some of which appeared to be occupied by five, and none by less than three persons.

Mr. Angas, in his admirable work "South Australia Illustrated," referring to the huts of the natives, says:—"These habitations of the Australian natives are extremely rude and simple. In summer time a few green boughs broken off from a neighboring gum tree stuck in a semi-circular shape into the ground constitute their only shelter. At other times they construct huts of the branches of trees, open on one side, and about 4ft. high, somewhat resembling a beehive. The huts of the Milmendura tribe, on the Coorong, are built facing the north-east, so as to shelter the inmates from the cold southerly and westerly gales to which they are exposed. The winter huts of the Lake Albert natives are more snugly built than those of the northern tribes, and are constructed with greater labor and skill."

Flinders, in his survey of the Gulf of Carpentaria, saw a collection of stones piled together in a line, resembling a low wall, with short lines running perpendicularly at the back, dividing the space behind into compartments. In each of these were the remains of a charcoal fire, all the wood near at hand having been cut down. On another island a similar construction was seen, with not less than thirty-six partitions, over which was laid a rude piece of framework; and the neighboring mangroves to the extent of an acre and a half had been removed. It was evident that these people were Asiatics, but of what particular nation or what their business here could not be ascertained. He suspected them, however, to be Chinese, and that nutmegs might possibly be their object. From the traces amongst Wellesley's Islands they have been conjectured to be shipwrecked people, but that opinion has since been altered.

McKinlay's party, whilst crossing a large plain on the morning of the 11th of February, 1862, at the northern edge of the Great Stony Desert, found large stones, much larger than they had seen before, placed side by side, marking out squares, circles, and different kinds of figures, as far as the eye could reach, but for what purpose the party could not make out.

Stone circles are numerous in the colony of Victoria, especially in the western portion, where monolithic blocks 8ft. or 9ft. in height surround a space varying in diameter from 18ft. to 50ft. The stones in the smaller circles number about 150, and are generally about the size of a man's head. These stone circles are almost always in close proximity to oven mounds.

My friend Mr. Johns informs me that Mr. Alex. Ingram, inspecting surveyor of the drainage works at the Great Condah Swamp, in the Western District of Victoria, lately lighted on a cluster of hut circles, such as I have previously described, among the broken lava near one of the arms of the swamp. The floors were cleared and levelled by the removal of the loose blocks, which were piled up in a low wall around so as to form a break-wind, and which (as Mr. Ingram learned from a native born at the place and who remembered these particular shelters when used as dwellings) were roofed over with boughs or bark like an ordinary native hut. Mr. Ingram did not count the circles, but thinks there were ten or twelve of them close together.

The Rev. Mr. Macpherson refers to them, and so also does Mr. Westropp in his "Pre-Historic Phases." He says:—"Even in Australia stone circles are said to occur; and Mr. Ormond, in a letter to Sir J. V. Simpson, also says that he has seen many circles near Mount Elephant Plains, in Victoria. They are from 10ft. to 100ft. in diameter, and sometimes there is an inner circle. The stones composing these circular areas vary in size and shape, and human bones have been dug out of mounds close by. The aborigines have no traditions respecting them." Again he quotes Mr. J. Wood, in his "Natural History of Man":—"The blacks of Clarence river place a number of stones in a circle, and in the centre they erect an upright slab of stone. They give no reason for this custom, but only say that 'black-fella make it so,' or 'it belong to black-fella,' the former reply signifying that the custom has always prevailed among the tribes, and the second that the upright slab shows that a native is buried beneath." Whether these stone erections are shelters in a treeless plain, or are connected with some hitherto unknown religious idea, the origin and meaning of which has been lost in the lapse of time, it is impossible to say.

In 1883, Mr. D. Lindsay, in his "Explorations through Arnheim Land," says:—"Just after starting back on the 13th, when travelling through a patch of fine open forest country, high stringybark and other trees, with good red clayey-loamy soil, we came on the top of a very large native encampment, quite a quarter of a mile across, on which was the framework of several large 'humpies,' one having been 12ft. high, and some enclosures, as if small game had been yarded and kept alive. The natives had excavated five holes in the red clayey soil, three of which were oval. One I measured was 18ft. long and 8ft. wide, and 4ft. deep, with the earth thrown up in a heap on one side; two were semi-circular, 3ft. deep and 3ft. across, with a diameter of 20ft. The 'humpies' were of a superior description to anything I have seen in the Territory. This camp must have contained quite 500 natives, and have been the scene of some great festival, the corroboree or dancing grounds being numerous and well-worn."

Ernest Giles, in "Australia Twice Traversed," describes some native huts which were of larger dimensions than any he had before seen. He says:—"They were of two stories," that is, they had "an attic or cupboard recess." These peculiar wurleys were west of Ayers' Range, nearly in the centre of the continent.

In the neighborhood of the Elsey Creek the blacks cut deep notches in standing trees, resting a large ridge pole therein. Against this other poles are placed, and against them are bushes, reeds, and grass, and over all a thick covering of clay—generally white pipeclay—which is smoothed down with the hand, making a comfortable dwelling about 12ft. to 16ft. long by 8ft. to 10ft. wide. The doorway is about 3ft. wide, open to the ridge. In this space is placed the fire, which not only warms the interior, but permits the smoke to escape without inconveniencing the inmates. Seen at a distance through the open park-like plain they have the appearance of white tents forming a considerable encampment. Within and without they are exceedingly clean. Surgeon-General White writes:—"In one of their huts at Broken Bay, which was constructed of bark, and was one of the best I had ever seen, we saw two very well made nets, some fishing-lines, not inferior to the nets, some spears, and a stone hatchet of a very superior make, &c. Everything about this hut bespoke more comfort and convenience than I had elsewhere observed."*

Plate 39 shows a new form of native huts of permanent structure at Wreck Creek, Rockingham Bay, in Queensland.

* Journal of a Voyage to New South Wales, 1790.

NATIVE BEDS OR SLEEPING PLACES.

The aboriginal is not fastidious in respect to the appointments of his bed-chamber or its furniture. Generally he lies on the bare ground, or on grass, leaves, or rags when in his wurley or hut. In the south of the continent he is less careful in choosing his sleeping berth than his brothers who inhabit the northern portion bordering on the Gulf of Carpentaria or the Indian Ocean, where they raise their bedsteads about 2ft. or 3ft. above the ground by means of four stakes supporting a platform of small sticks about 5ft. long and 2½ft. wide. These sleeping frames are never found singly, from three to twenty being generally found grouped together. A large number of these are to be found on the Gilbert river or in its neighborhood; especially is this the case where, from the low lying country, it is liable to sudden inundation. Not only do they sleep on the raised truckle bedsteads, but they also during the cold nights light a fire underneath the frame, which not only affords grateful warmth, but also serves to secure them from the pest of the north—the ubiquitous mosquito.

In the northern portions of Australia, near Arnheim Land, the natives build low walls with short lines running at right angles to them, dividing the spaces between the walls into small compartments, in which is frequently placed a fire. Over these spaces and resting on the walls sticks are placed with a covering of leaves, on which the blacks sleep. In one of these camping places thirty-six compartments have been counted. Near the Glenelg river on the North-West Coast Sir George Grey found that the natives used bark beds, and once saw twelve of them ranged in a circle round a central fire. On the Leichardt river the blacks make themselves coverlets of grass, in which they wrap themselves at night.*

In the country near the Gulf of Carpentaria, which is subject to periodical inundation from the overflowing rivers, the natives erect stages or platforms in the forked trees beyond the reach of the highest floods. Their construction is of a rough description, but is sufficient for the object aimed at. Long saplings or branches of trees were placed in the forks of neighboring trees; these were again crossed with wattles or smaller shrubs, until the floor of the platform would bear the weight of one or more adults, who would stay there until the floods subsided. In the meantime life would be sustained in this aerial dwelling by eating the dead or living animals carried to them by the flood waters. As, however, tropical

* Curr, *The Australian Race*.

Plate 39.

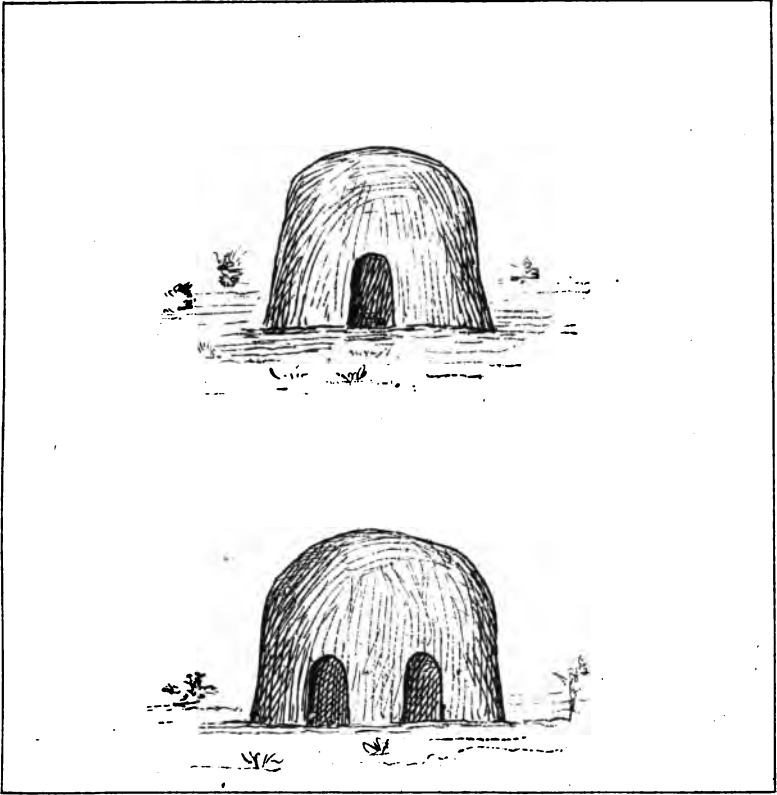
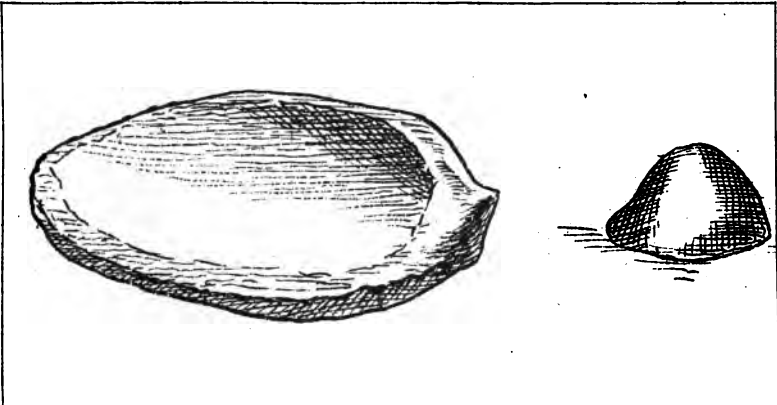


Plate 40.



floods do not continue for long. their forced detention on these frail structures did not last for any length of time.

MILL STONES.

In the remarks in this work on quarrying mention is made of the mill stones used for grinding the nardoo or other seeds. These grinding stones are to be met with everywhere. Near Mount Cockburn Captain King saw the remains of a native encampment at which there were eight or nine circular spots cleared away in the grass, and in the centre of each were the ashes of a small fire. Close to these fireplaces were some large flat stones with a smaller one on the top which the natives had used for bruising or grinding the seeds of plants and breaking shellfish; and Sir George Grey, also in Hanover Bay, found a circle of large flat stones round a fireplace occupying the centre, on each of which was laid a smaller one, evidently for the purpose of breaking small shellfish, as the remains of the shells were lying scattered around in all directions. Kangaroo bones were also plentifully strewn about, and beside each stone was laid a large shell, probably used as a drinking vessel. He also found similar stones which had been used for grinding seeds near Munster Water on the Prince Regent river. Captain Sturt found similar grinding stones on the north side of the Stony Desert, where the seeds of the box tree had been bruised or ground as well as grass seeds. A beautiful mill stone in my possession was in use on the Lower Murray. (See Plate 40.)

NARDOO SEED.

The nardoo seed is gathered in large quantities in the flooded flats by scraping it up into heaps. It is ground and prepared for food much in the same way as a bushman does his damper or johnnie cake. The method adopted by the natives is as follows:—They winnow and grind the seed, putting the flour into a cooliman or wooden trough, and mixing it thus—the lubra takes up a good mouthful of water and squirts it occasionally on the flour, kneading it meanwhile into a paste. When sufficiently kneaded it is flattened out and beaten with the hand into the form of a thin cake and then baked in the hot ashes from the fire. When cooked it is not at all palatable to the European taste, as it leaves a hot astringent sensation in the throat, but it will sustain life for a long time. Mr. Chris. Giles states that when he was engaged in 1870 in the erection of the Overland Telegraph line, being on the Finke river, near Ross' camp, No. 13, he came upon a dépôt of aboriginal property, consisting mainly of bags of these seeds ready for grinding into flour for food. The seed, which was about 1cwt., was garnered

in bags, some made from the legs of trousers, and others made from socks and the sleeves of shirts stolen from his party.

Some years ago there was a story current in the colonies that a white captive was held by an interior tribe, whose influence on them was very great. He had taught them (so the story ran) to cultivate the nardoo plant and store the seed for future use; and their mills or grinding stones were said to be better made and larger. Their huts were reported to be of permanent construction and commodious, and their implements and weapons more efficient than those of their neighbors. No narrator of the story could give the locality of this tribe or their captive, and every teller of the narrative would point out some other direction in which they lived from every other person who told the story.

OVENS FOR COOKING.

The natives cook their food in various ways, their simplest and easiest method being by placing the carcass on the hot embers and roasting it quickly; when they are, however, very hungry they have not patience to wait for it being properly cooked, but will remove it before it is half done and devour it with avidity. I have seen them on their fishing excursions bring fish straight from the net and place it on the fire whilst still alive, and before it was nearly done remove and eat it greedily. I have enjoyed with them the double-headed lizard, when properly cooked, and the flesh was as delicious as any chicken. The mode adopted was to encase the reptile in a thin coating of clay and then cover it with the hot ashes, when it would soon be properly cooked and fit for the table of an epicure. When ready the clay envelope would be taken off, bringing with it the outer skin and scales, leaving the flesh white like the tenderest chicken and of the most appetising flavor.

The blacks, however, use ovens similar to those formerly in use by the natives of the Friendly and Society Islands. A circular hole is dug, and at the bottom is placed a layer of flat stones; on this is laid a fire of hot ashes, which after a few minutes is removed, when the meat is placed on the stones; other stones previously made hot are then laid on the top and over all is placed a fire, which very soon cooks the repast. Sir George Grey, on his explorations in 1838, passed a native oven very neatly and carefully constructed; it consisted of a hole sunk 8in. deep in the earth, which was quite circular, 3ft. in diameter, and neatly paved with flat stones. The last articles cooked at this place were a large quantity of turtles' eggs, the remnants lying scattered all around.

In the northern parts of the continent this mode of cooking is very common, and has resulted in the tribe having its special cooking stations, where, for ages, this system has been in use, as evidenced by the immense shell heaps (or middens), showing also that their method of cooking has undergone very little, if any, change. In the southern portion, ovens in the ground are very general; mounds 30ft. or 40ft. in diameter and 4ft. to 5ft. high exist, attesting the fact that oven cooking has been carried on by the natives for generations. The mounds in the south are, however, composed generally of clay and embers of wood, so that in cooking a large animal like the kangaroo round hot lumps of clay were used instead of stone. I have seen the carcass of a kangaroo thus cooked by placing it on the hot embers, after taking out the entrails and filling the body with lumps of clay, almost red hot; four natives would then turn the meat by each one taking hold of a leg, and in the meantime the entrails, which are considered choice titbits, were partially cooked in the embers and quickly devoured. In removing the entrails or any small food cooked in the embers they would use two small sticks 10in. or 12in. long and about as thick as one's finger, much in the same way as we should use a pair of tongs, and with great dexterity lift the meat on a leaf or piece of bark used as a plate.

Midway between Geelong and Ballarat there is a considerable number of mounds, locally known as blackfellows' ovens, viz., at Bruce's Creek, near Lethbridge, and also on the slopes of Cowie's Creek and on the Woodburne Creek, near Meredith. They vary in size, from 3ft. or 9ft. to 200ft. and 300ft. in diameter. Many of these ovens were used as burial-places for the dead, and as many as four skeletons have been found in one of them.

Roasting the meat is not the only form of cooking adopted by many of the tribes. In North Australia they dig holes in the ground and puddling with clay make them watertight. Into the hole they pour water and throw in red hot stones along with the fish, the tortoise, or the smaller alligators; a continuous number of red hot stones are immersed in the water until the meat is sufficiently boiled to be eaten. On the north-eastern coast their meat is often boiled in a conch shell, and Macgillivray mentions in "*The Voyage of the Rattlesnake*," that on Cape York Peninsula paste from the seeds of the nardoo and other plants is cooked in a large shell; and Captain Tench, in his small work, giving an account of the settlement of Port Jackson, states that the natives boiled water in oyster shells. I have personally seen the native women of the Encounter Bay tribe catch tadpoles from the claypans with a very fine net and cook them in a large mutton-fish shell.

On the North-West Coast, when fish are cooked, they are tied up in a piece of thick and tender paper bark (torn into an oblong form for better adaptation to the form of the fish). The bark is wrapped round it, as paper is folded round a cutlet; * strings formed of grass are wound tightly round, and it is then slowly baked in heated sand, covered with hot ashes. When completed the bark is opened and serves as a dish, being full of juice and gravy, not a drop of which has escaped. Several of the smaller sorts of freshwater fish, in size and taste resembling whitebait, are really delicious when cooked in this manner.

In New South Wales, on the Bugong mountains, a moth, peculiar to this district, which has obtained from the natives the name of the Bugong moth, collects on the surface of the granite rocks in immense numbers. Mr. G. Bennett says:—"To procure these moths with greater facility the natives make smothered fires underneath the rocks and suffocate them with smoke, at the same time sweeping them off frequently in bushelsful at a time. After they have collected a large quantity they cook them in the following manner:—A circular space is cleared upon the ground, of a size proportioned to the number of insects to be prepared; on it a fire is lighted and kept burning until the ground is considerably heated, when, the fire being removed and the ashes swept clean away, the moths are placed upon the heated surface and stirred about until the down and wings are removed from them, when they are placed on pieces of bark and winnowed, to separate any dust still clinging to the bodies. They are then eaten, or placed in a wooden vessel called *walburn* or *calibum*, and pounded into masses or cakes resembling lumps of fat, and may be compared in color and consistence to dough made from smutty wheat mixed with fat. The bodies of the moths are large, and are filled with a yellowish oil, resembling in taste a sweet nut. The first time this diet is used by the native tribes violent vomiting and other debilitating effects are produced, but after a few days they become accustomed to its use, and then thrive and fatten exceedingly upon it." These insects are held in such estimation amongst the aborigines that they assemble from all parts of the country to collect them from the mountains; and the crows also congregate in large flocks for the same purpose.

Near Roebuck Bay, in Western Australia, the natives eat a kind of red fatty earth, found there abundantly. Humboldt mentions a similar practice amongst the "Ottomac" Indians of equinoctial America.

* Sir George Grey's North-West and Western Australia.

CHAPTER VII.

DOMESTIC UTENSILS.

In attempting to describe the various articles manufactured by the aborigines for purposes ordinarily connected with their daily life the first place must be given to bags or nets used for the carriage of provisions and things used either in the procuring or preparation of food; and also of bags and coolimans for carrying water.

Sir Thomas Mitchell saw in some huts near Mount Arapiles various articles, amongst them being bags apparently made of a tough small rush; two of them resembled reticules, and contained balls of gum, flints for the spear-heads, &c. Water bags are sometimes made of the *Calamis Australis* closely plaited, also of palm leaves sewn with the sinews of animals. In some parts an opossum is skinned from the head downwards, the skin being drawn off inside out like we do that of a rabbit, without any cutting of the skin other than at the feet. The two holes thus left are then securely tied and, with the fur inside, the water bag is ready for use.

On the Mary river, in Queensland, the natives make twine from the fur of the tail of the flying squirrel, with which they make netted bags with large or small mesh, according to the purpose for which it may be required. They also make bags by plaiting narrow strips of the cabbage palm, in which they deposit all their valuables, such as bits of string, necklaces, bone needles, shells, gum, flints, fur, and even the bones of the dead.

BASKETS.

The basket is a common domestic article amongst the blacks, and is fashioned out of different materials. Some are made out of the leaf of the cabbage palm, others out of the bulrush, flags, grass, or twine manufactured from vegetable fibre. Captain King found some huts near the south head of Endeavor river, in which were "gourds and two or three baskets made of the leaf of the cabbage palm." At Melville Island the natives came with water to Captain King's boats, and, in return for some files and chisels, gave the party two baskets, one containing water and the other the fruit of the sago palm. The basket containing the water was allowed

to float on the sea towards the boat, the one containing the sago-palm being thrown into the boat, as the natives were too timid to approach near enough to put them quietly in.

In South Australia and Victoria bags or baskets were made of the leaves of the common reed, also of the bark of the *Eucalyptus obliqua*; one of these, a flat basket, formerly in common use amongst the blacks, was beautifully woven, very strong, and made in such a form as to be easily carried on the back. Advantage was taken of various colored grasses to weave in the fabric of the bag some sort of a pattern or design. In Queensland a native had made a wickerwork basket in the shape of a bottle; it was finely wrought and painted with streaks of red and yellow.* (Plate 41.)

A basket, shown in Plate 41, was made of stout native osiers, closely packed together, and held in place by other osiers somewhat like the hoops of a barrel, except that they were tied to the body of the basket by twine made from the bulrush, which grows quite luxuriantly in nearly all the watercourses on the continent. Its height was 11 in. from the rim to the bottom; its diameter at the bilge 8 in.

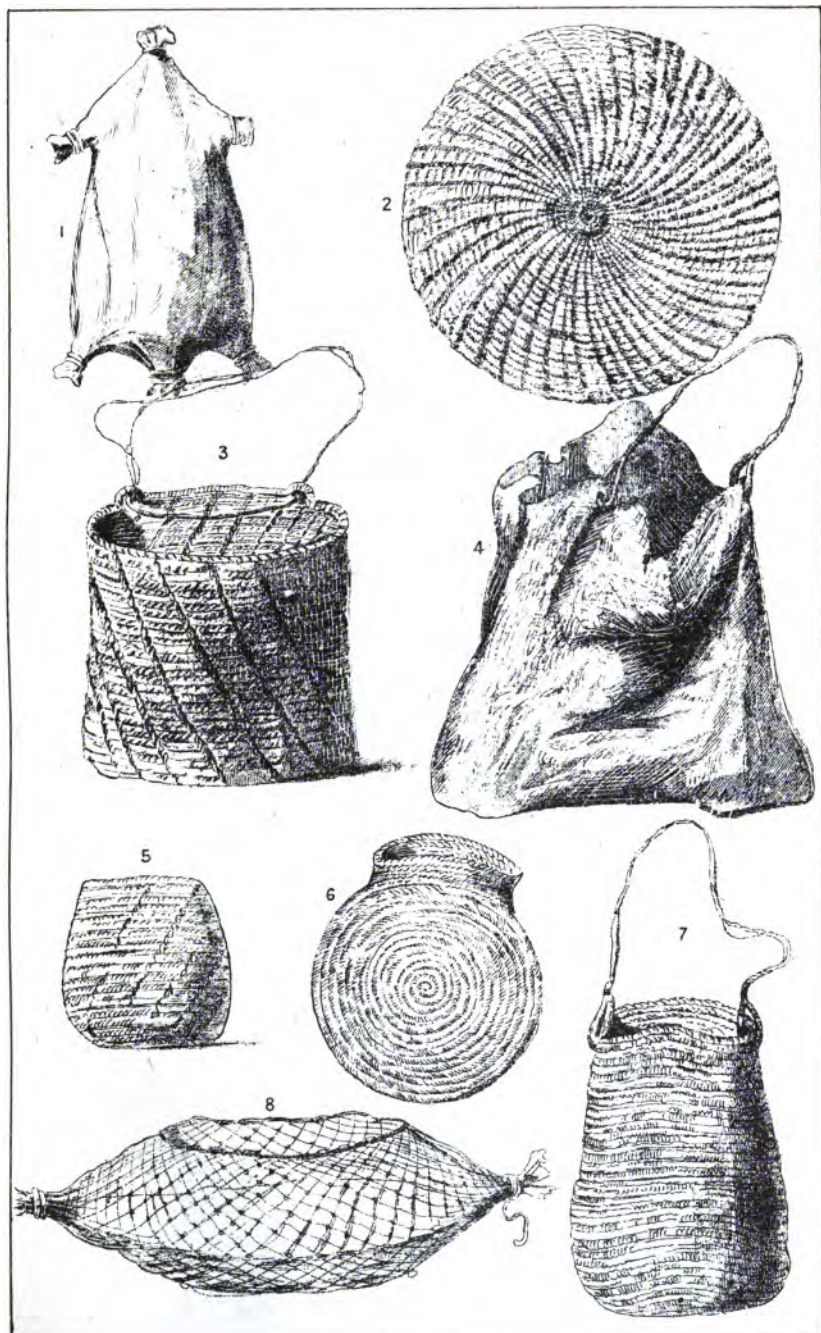
Some kinds of baskets are made by the tribes of the Lower Murray, and are manufactured from rushes, plaited by the native women. The rushes are gathered in bundles, and used whilst green and in a pliable state.

The women of these tribes bordering on the south-east coast were in the habit of manufacturing baskets of different forms, although out of the same kind of material. Each tribe apparently had its specific pattern, which was followed definitely without in any way attempting to imitate the form of another. For instance, the tribes east and west of the River Murray made baskets of a different kind altogether.

There was a material difference in the patterns followed by the two tribes. One is essentially a basket or bag to be carried over the shoulder, while others are in the form of a basket for a fixed position, and made, not for removal from camp to camp, but to be used only as a permanent article for a stationary camp or place, and partook more of the form of a lady's bag, as there was a lip or flange on the top which could be effectually closed by a string. It was neither slung over the shoulder nor stood on the ground, but was carried in the hand from place to place as inclination or necessity demanded. (Figs. 6 and 7, Plate 41.)

These manufactured articles were of good size; one was about 2 ft. in height, and varied from 1 ft. to 1 ft. 4 in. in diameter; a

* The Aborigines of Victoria, Vol. I.



second stood about 2ft. 4in. in height, was about 10in. in diameter at the mouth, and about 15in. at the bottom.

Since the settlement of South Australia, and the consequent intermixture of the tribes, their remnants have learnt one from the other how to make the various kinds of baskets or bags, and these manufactures may be obtained in either or all the forms from any of the natives in these different localities.

The Queensland tribes make beautiful baskets for various purposes, in some of which a native woman would carry her child—a kind which I believe to be much in use about the Herbert river. The handle, attached to one side only, was sufficiently long to permit it passing over the lubra's head, and across the forehead; the weight of the child was thus borne in fashion similar to a burden on the knot of a London porter.

There is an extensive work carried on by the native women of the Narrinyeri tribe, near Lake Alexandrina, consisting of mats, baskets, nets, twine, emu feather girdles, and necklaces.* These girdles are made of emu feathers, and are worn by the young unmarried women only. Some are made of a fringe of twine and feathers, or of twine only. The twine is all of aboriginal manufacture. The natives also make head-bands of spun human hair. The hair is carefully saved when cut for mourning in case of death.

These natives are very adept in the manufacture of netting, in European cotton thread. Netting is indeed their *forte*; they do it perfectly, and always with needles of their own manufacture. The size of the mesh is measured with the finger, and they take the stitch over, and not under, as Europeans do.

They also make necklaces of several kinds—some of quondong stones, others of minute shells, and others again of short lengths of reeds strung together.

WATER VESSELS, ETC.

The vessels used for carrying water, called coolimans, were of various materials and shape; the cooliman proper was generally made of wood, hollowed out of a small sound log, and shaped like "the model of a canoe." These are to be found amongst the interior tribes as well as amongst those dwelling along the coast. In some cases the dead body of a child, much beloved by the parents, is confined in this most precious of their household treasures, the cooliman. McDouall Stuart found one fixed high up in a tree near the centre of the continent, which contained the dead body of an infant. Gregory found them in lat. 16° 42' 50" S., long.

* South Australian Aboriginal Folklore.

136° 28' E. "They were hollowed out of a block of wood in the shape of a canoe," and their capacity varied from 2galls. to 3galls. or 4galls. He also found others nearly four degrees further south; and Captain Sturt saw similar ones near Cooper's Creek. Other water vessels are made of the bark of a tree, the ends being gathered up and tied or sewn exactly as is done with a bark canoe. Again water vessels are made of the gnarled excrescence of the gum tree, as in the annexed illustration; and Surgeon-General White in 1790 found in a hut at Broken Bay two vessels for carrying water—one made of bark, the other made out of the knot of a large tree hollowed. (See Plate 42.)

It was a common occurrence when a mother died for a drinking cup to be made out of her skull, to be used exclusively by her daughter. (Fig. A, Plate 28.)

Mr. E. Giles, when about 200 miles west of Queen Victoria's Springs, in Western Australian territory, observed two women going to a native well, both of whom had vessels for carrying water. They were made of the bark of a yellow tree (probably sandalwood), tied up at the ends with a kind of bark string, thus forming a small trough; and when filled a few leaves or some grass placed on the top as a kind of float prevents the water being lost by spilling. The women are accustomed to carry vessels of this kind on the head. Captain Sturt in his memorable journey saw bags and coolimans made of rushes and wood for carrying water.

A water bag, as in Plate 41, Fig. 1, was constructed out of the skin of a native dog, and by means of the slots on the twigs could be drawn almost close; it was perfectly watertight. The smaller one was of bark, and quite a *fac simile* of those seen by Mr. Giles, except for the handle. It was used for carrying water by the hand.

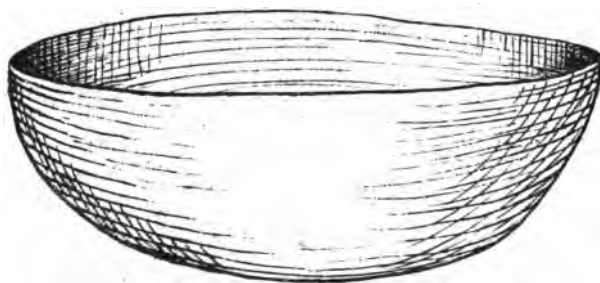
The Western Australian natives make buckets of a circular form from the bark of trees, which have all the appearance of our cans for carrying milk or water. They are about 8in. or 10in. deep and the same in diameter, and are carried in the hand by a string so nicely adjusted that the water is not spilled. The bottom is also of bark closely fitted, and the joints closed with gum. One brought by Sir George Grey is here illustrated. The joint on the side and the bottom are sewn in with vegetable fibre.

The water-carrying vessel shown in Fig. 1, Plate 43, was formed of a single strip of bark, the ends being gathered up and tied with native twine, and the handle made of a flexible branch of the same tree; wherever the bark had cracked the fault had been repaired by the use of grasstree gum.





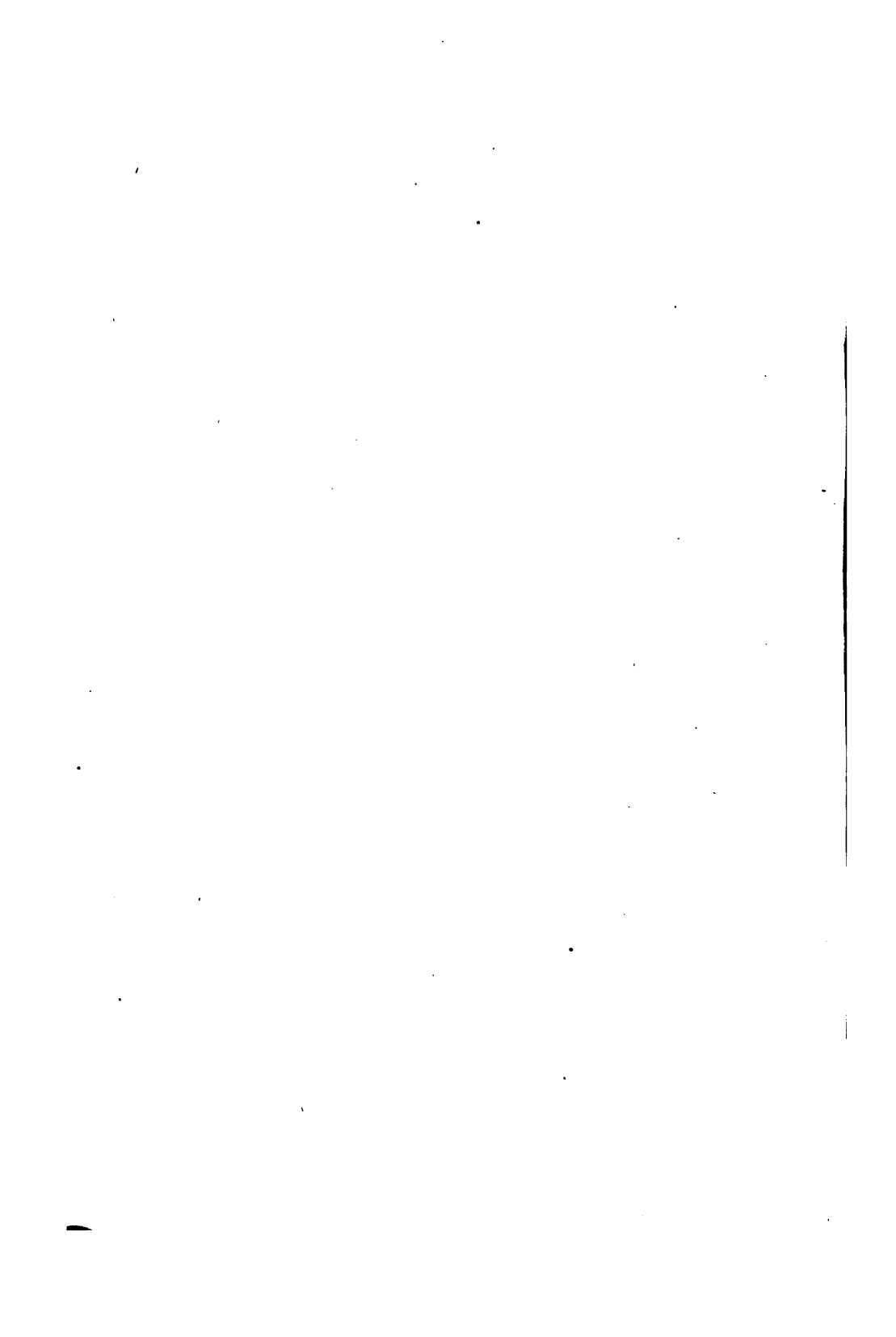
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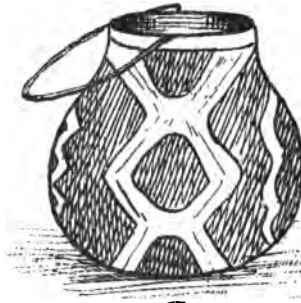


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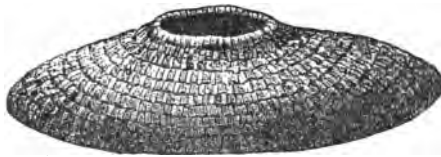


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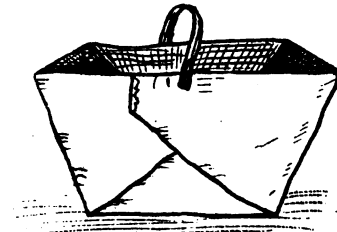




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Another form of a drinking vessel (in the possession of Sir E. T. Smith, K.C.M.G.) is of wood, manufactured by the natives on the Finke river. The length of this vessel is 13½ in., the width 5 in., the inside depth 2½ in., the full depth 2½ in. (Plate 43, Fig. 2.)

In the Adelaide Museum I found a water carrier made of bark, resembling a lady's reticule. The joints were closed with grass-tree gum, and the vessel was perfectly watertight, as in Fig. 3, Plate 44.

In the Northern Territory of South Australia the natives make bags or vessels for carrying honey. The material is of vegetable fibre, finely spun, and the warp and woof so closely woven that the semi-fluid honey does not exude.

Fig. 3, Plate 43, shows one of these honey baskets now in the National Museum at Adelaide. Its length is 12 in. and diameter at the mouth 4 in., and it is carried in the hand by the strings shown on the right side of the bag. The whole outside is painted with white color, and on the base are red lines, triangles, and a snake. Should there be more honey than they can conveniently carry in the basket, one of the natives will detach a portion of the inner bark of a gum tree and make it into a fibrous mass, with which they will mop up the honey like a sponge, each one present taking a suck in turn until the whole is absorbed.

The sorcerer has his charm bag, in which he keeps his specialties from the gaze of the uninitiated. This one in Fig. 1, Plate 44, is in the Adelaide Museum, and is 14 in. high by 4 in. diameter at the mouth, and 6 in. diameter in the widest part. It came from the Katherine river, and is manufactured out of opossum fur twine. The owner always wrapped it up very carefully in strips of rag and bark to prevent children and females from seeing it, as he averred should such obtain a glance at it the offender would sicken and die in a few days. In the same museum is the model of a canoe made of bark, painted white with red designs marked thereon, and it was obtained in the Northern Territory, and was probably used as a cooliman for carrying water.

The aborigines have a tobacco, the product of a shrub grown very generally throughout the continent. The native name of the shrub is Pitchuri (*Duboisia Hopwoodii*). This tobacco contains in the stem and leaf a stimulant similar to the manufactured plant of the civilised nations, and is chewed systematically by many of the natives, forming a subject of barter and trade between the various tribes. Fig. 2, Plate 44, shows a pouch in which the natives carry this stimulating plant. It was generally in use amongst the tribes in the interior, and for this specific purpose only.

It is made of vegetable fibre, and is knitted or netted with great skill. One in my possession is of a different shape, and is made to hang from a waist belt or be carried in the hand.

FISHING: NETS, LINES, SPEARS, ETC.

Fish is most abundant along the coasts in the rivers and creeks of the interior, and the means of procuring this kind of food is almost the same amongst all the tribes, whether on the coast or inland. The nets are made of various materials, amongst them being lines spun from human hair, the fur of the opossum, rushes, a kind of grass, and also from the inner bark of the melaleuca, as well as from the young and pliant boughs of shrubs growing near the fishing ground.

At Simm's Island, in Mullet Bay, the fishing nets were made of the fibre obtained from the melaleuca. At Lake Buchanan, about 28° S. lat. and 139° E. long., they were made of rushes, the natives using as a mesh the first two fingers of the left hand. These nets were very neatly made, and answered the purpose remarkably well. On the Hogan river fishing is a pursuit which is left entirely with the lubras, who construct a long net of dry twisted grass, through which the water only can pass, and, stretching from one side to the other, is pushed upwards against the stream, when one end is suddenly brought round to the opposite bank and the fish are easily captured.

Mr. Dean, a member of Mr. A. C. Gregory's exploring party (when in lat. 17° 1' 31", long. 136° 28') found a fishing net neatly made of twisted bark, the mesh 1½ in., the length 30 ft.

In Rapid Bay, St. Vincent's Gulf, the natives used a net about 20 ft. or 30 ft. long, stretched upon sticks placed crosswise at intervals. A couple of men drag the seine at some distance from the shore amongst the rocks and shallows where the fish are most abundant, and, gradually getting it closer as they reach the shore, the fish are secured in the folds of the net, and very few moments elapse before they are laid alive upon the embers of the native fires blazing before the adjoining huts. These nets are composed of string spun from the chewed fibres of reeds rolled on the thigh and twisted into cord.

In Encounter Bay I have seen the natives fishing almost daily. Two parties of them, each provided with a large net, square in form, with a stick at either end, and rolled up, swam out to a certain distance from the shore, and then spread themselves out into a semicircle. Every man would then give one of the sticks round which his piece of net was rolled to his right hand man, receiving

another from his left hand neighbor, bringing the two nets together, thus making a great seine. They now swam in towards the shore, followed by others of their number, who were engaged in splashing the water and throwing stones, which frightened the fish and prevented their escape from the nets.

The most singular method of catching fish I have ever heard of is one practised by the natives on Yorke Peninsula, in South Australia. It was related to me by a gentleman who had been long resident in that part of the colony, and whose word was taken without question on all matters of daily life. He stated that the blacks would catch and cook a good-sized fish, and, afterwards tying it up in a bundle of rushes, would tie it round the neck of a good strong swimmer, so that it would hang on his back. Thus equipped he would swim some little distance out to sea, making a circuit, and returning to the shore with the cooked fish still hanging behind him. When he has reached the shallow water he fixes a spear in the sand and attaches the fish to it; this is generally done where the water is about 3ft. deep. In the meantime the other members of the tribe have got ready their nets, and the fish, as soon as they arrive on the scent of this new species of drag, follow it with eagerness, and are surrounded and taken. Large quantities of fish are frequently captured by this ruse.

"On the Gwydir river were some osier nettings," says Sir Thomas Mitchell, "of very neat workmanship. The frame of each trellis was as well squared as if it had been the work of a carpenter, and the twigs had been inserted at regular intervals, so as to form, by crossing each other, a strong and efficient kind of net or snare. A small opening was left towards the middle of the current, and a netted bag was fixed to the sides, filling the opening, so that the fish driven from above by the natives were caught in it."

On the eastern coast the nets are generally made from the tough inner bark of the Currajong tree. Some are very closely netted, others have the mesh much larger and knotted. Sir Thomas Mitchell came across a net stretched from bank to bank of the River Murray. Captain King also saw several that were made from bark, and both Messrs. Gregory saw the natives carrying some very large fishing nets across the shoals in Mermaid Straits, the materials of which were some of them of $\frac{1}{2}$ in. cordage, "and might have been mistaken for the production of a rope walk."

The fur of the opossum at certain seasons of the year comes away readily from the skin and is carefully collected by the natives from the trees they haunt as well as from the dead bodies of the animals themselves. It is carefully stored in large bundles and placed in their netted bags, when it is spun into yarn or strong

cord. The same with human hair when there is any scarcity or failure of opossum fur. The spinning is almost always done by the men, who take a long stout twig with a hook at the end with which he picks a portion of the fur or hair, and it is then twisted between the thumb and fingers of the right hand, whilst the thickness of the yarn or cord is regulated by the left hand. The yarn is wound round a stick as fast as it is made until the stick is loaded up to its carrying capacity.

The fibre of the inner bark of the Currajong tree, as also of the melaleuca, makes very good string for nets, and consists of two strands only. After the fibre has been separated the twist is given by rolling the strands with the palm of the hand on the naked thigh, and then by a peculiar turn of the hand the two separate strands are twisted together, each turn making about 2in. of line. This string is used for a variety of purposes besides netting for fish or game, particularly in making smaller nets in which the lubra carries all her goods when moving from camp to camp.

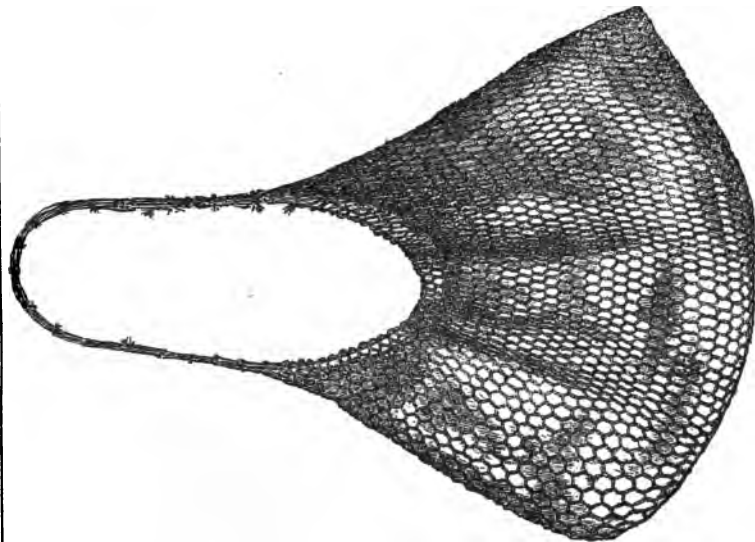
The netted bag in Plate 45 is made by the native women of the common reed which grows abundantly on the banks of the Yarra and Goulburn. The material is twisted into a rope and arranged in loops. The bag in Plate 46 is made of the fibre obtained from bark or of the hair of the opossum. The size of the mesh, as has been before remarked, is regulated solely by the fingers, and with amazing uniformity.

In the interior, on the banks of the Darling and Murray rivers, at Cooper's Creek, and others of similar character, very strong nets are used for the purpose of catching large game, even kangaroos. They are also stretched across rivers or creeks, where ducks and other aquatic birds are caught in large numbers.

In making bird nets the wild flax is used, which grows in tufts near a creek or river. It is gathered by the women, who manage the whole process of net-making. They give each tuft a twist, also biting it a little, and then lay it about on the roof of the wurley until dry, when it is worked up into cord and made into nets. These bird nets are in the possession of nearly every tribe. Sir Thomas Mitchell found them set across the Darling for the purpose of catching the ducks and other waterfowl which there fly along in considerable flocks. These nets overhang the river or its lesser streams, being suspended between two lofty trees, or, if not available, from long forked poles.

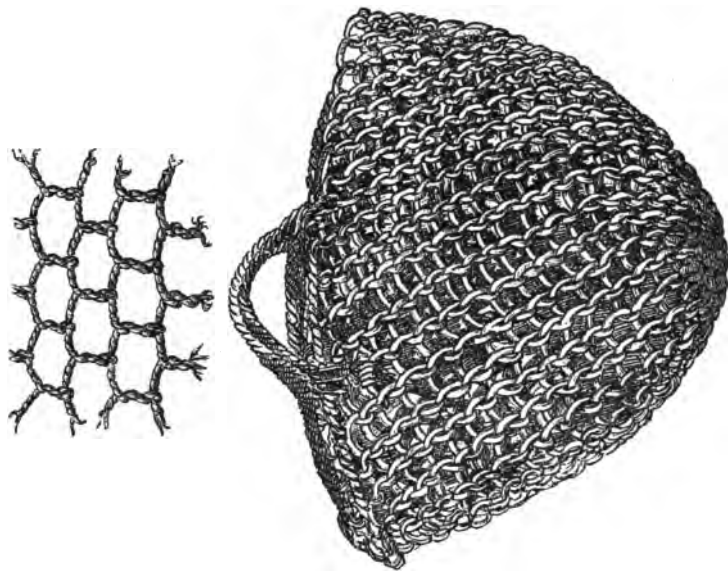
The meshes were about 2in. wide, and the net hung down to within 5ft. of the water. The natives then proceed some up and

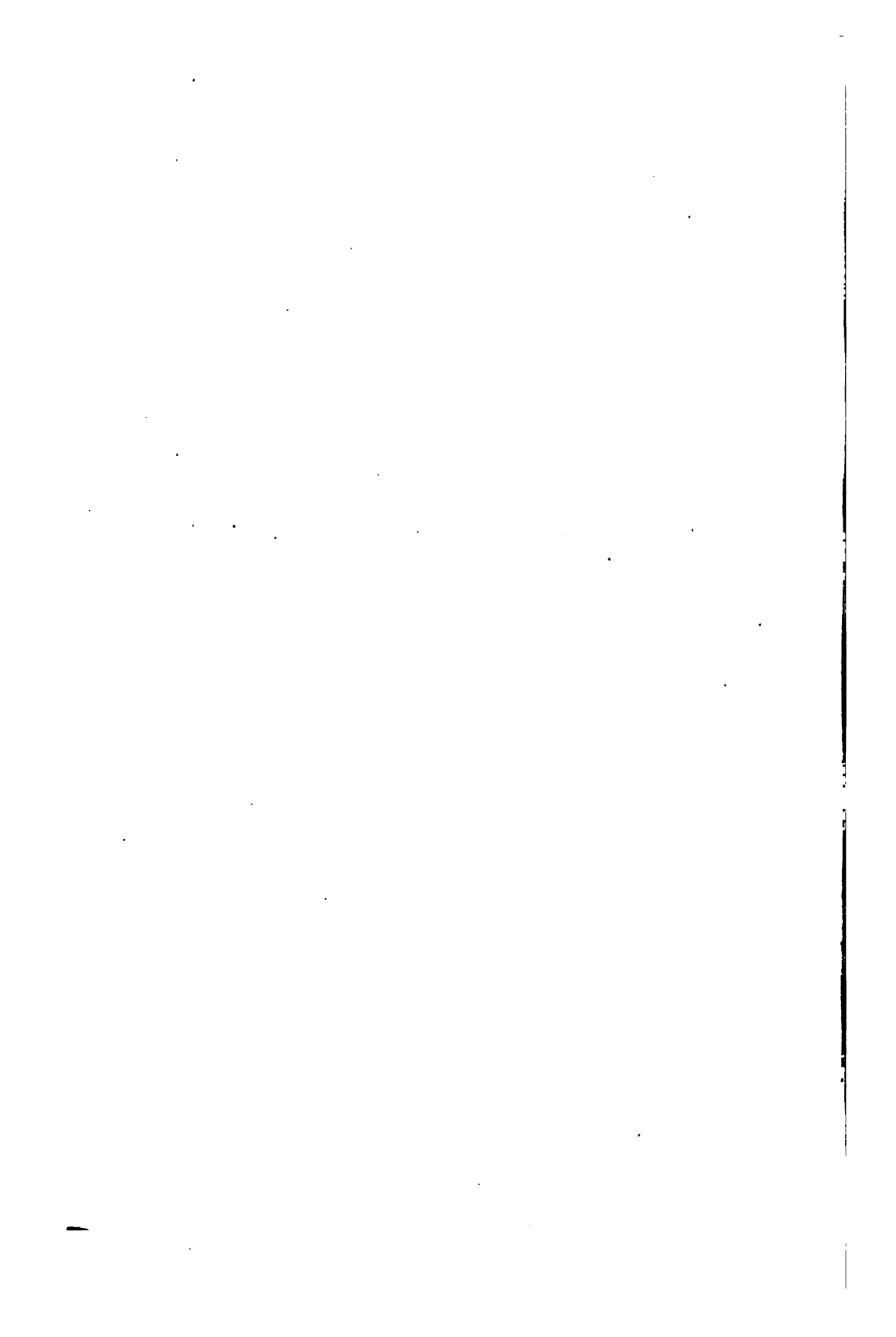
Plate 46.



SURVEYOR GENERAL'S OFFICE, ADLAIDE, AUSTRALIA. Photo Zilligengeler

Plate 45.





some down the river in order to scare the game from other places, and when any flight comes into the net it is suddenly lowered into the river by a native who is sitting down under cover close by, thus entangling the birds beneath, when he goes into the water and secures them.* Mr. F. Gregory saw, in lat. $21^{\circ} 6' 43''$, long. $117^{\circ} 17'$, some natives capturing partridges by means of nets made from the *trioidia* (*spinifex*) neatly twisted and netted in the same way as done by ourselves; the mesh varied, from 1in. to 5in. according to the purpose for which it was required. To induce the birds to enter the nets, or cages, they placed ragged bushes all round the small pools with the exception of spaces 5ft. or 6ft. wide; from these openings they stuck in a double row of twigs, arching so as to meet overhead in the centre 1ft. or 2ft. high from the ground. These arches led for several yards and terminated in a net thrown over a few light sticks at the end. The birds after drinking do not immediately take flight, but run up the only opening under the arch of twigs, and finally into the net, which is then drawn to by the hunter lying in wait for the purpose.

FISHING SPEARS.

Spears of a special form adapted to the pursuit of fish are made by many tribes, although some of the Lower Murray blacks use the ordinary wooden-pointed and unbarbed spear when fishing in the Lakes Alexandrina, Victoria, and Albert; so also do the Encounter Bay tribe. This latter weapon when used requires extraordinary quickness and precision of aim when striking fish below the surface of the water. Those spears specially suited for fishing are either two, three, or four pronged, with the barbs turned inwards, as shown in Plate 47, Fig. 1, or plain straight spears without prongs or barbs.

The straight spear without prongs or barbs consists of a tough, heavy piece of wood, rounded and brought to a fine point, and hardened by means of fire and beautifully polished. It is then fitted into a reed that grows abundantly on nearly all the water-courses and rivers. The wooden point is fastened to the reed by the sinews of the tail of the kangaroo, the union being made perfect with gum or resin. This instrument is also used in tribal battles, when it is thrown by the wommerah, as described in another part of this work. The three-pronged spear, 10ft. long, is used by the Murray river natives for the double purpose of spearing fish and paddling their canoe. The centre prong is a kangaroo bone,

* Mitchell's Explorations, Vol. II.

sharpened to a very fine point. There is another kind of spear, used very rarely indeed for any other purpose than that of spearing eels, the upper end being made of a piece of hard wood, well rounded, and carved at the point into two short prongs. The wooden point is attached in the usual manner to a long reed, or, if a reed cannot be procured long enough for the purpose, two or more are joined together with gum or resin. The lower portion of these spears is sometimes made of the peduncle of the grass tree.

There is yet another spear, about 7ft. or 8ft. long, that is commonly used for spearing eels, somewhat similar to the straight-pointed spear in the shaft, save that a bone is used instead of wood for the point; it has also a barb made by the projection of the bone beyond the point of junction with the shaft, where it curves slightly from the side, as shown in the illustration here given.* (Plate 47, Fig. 2.)

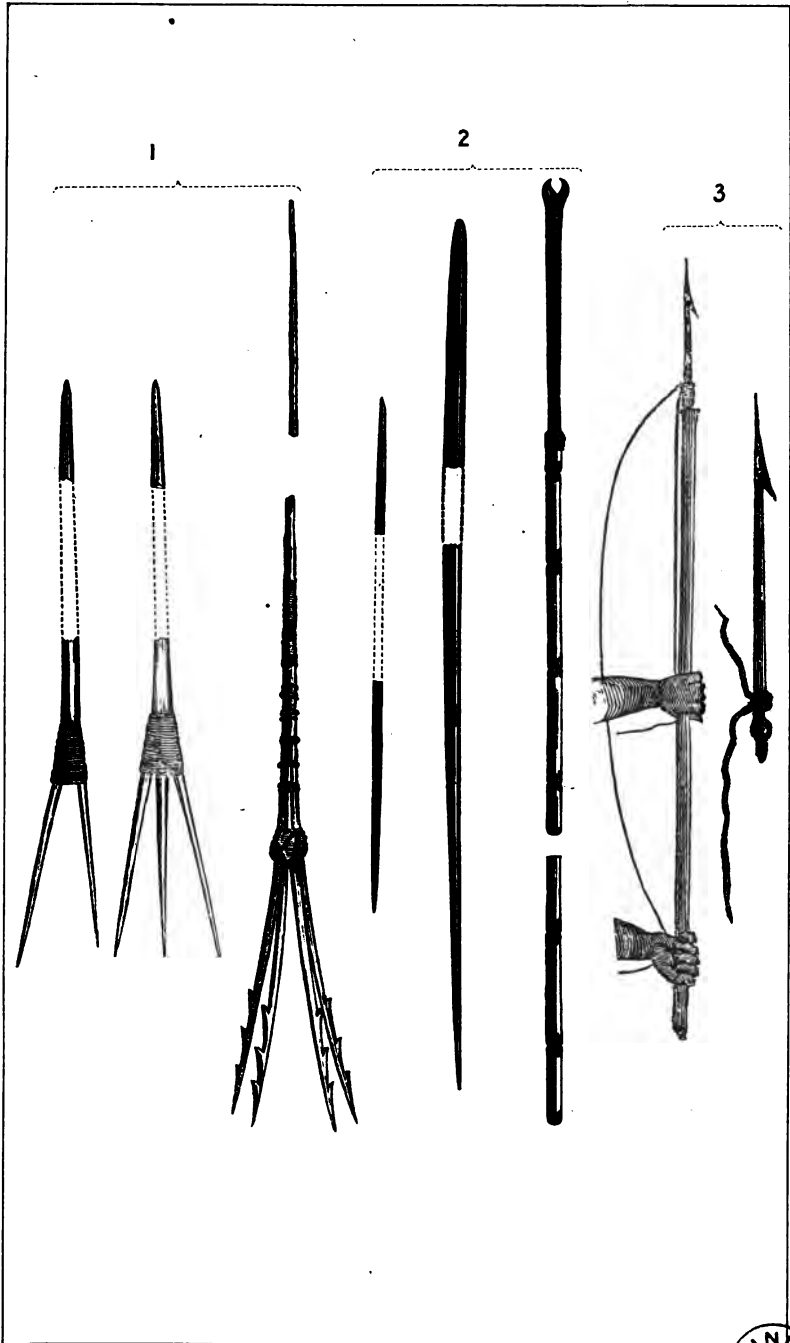
The two and three pronged spears in Plate 47 are from 10ft. to 15ft. long and are used for fishing about the upper portion of the River Murray, principally during the spawning season, when the fish are on flooded ground in about 18in. or 2ft. of water. The blacks in their canoes quietly traverse the flooded ground, where the aquatic grasses are just appearing through and above the surface of the water. As the canoe proceeds the fish glide away, causing the grass to move with a wavy motion within a few feet of the canoe. when the black, with unerring aim, strikes the spear, pressing against the ground until he can secure it. †

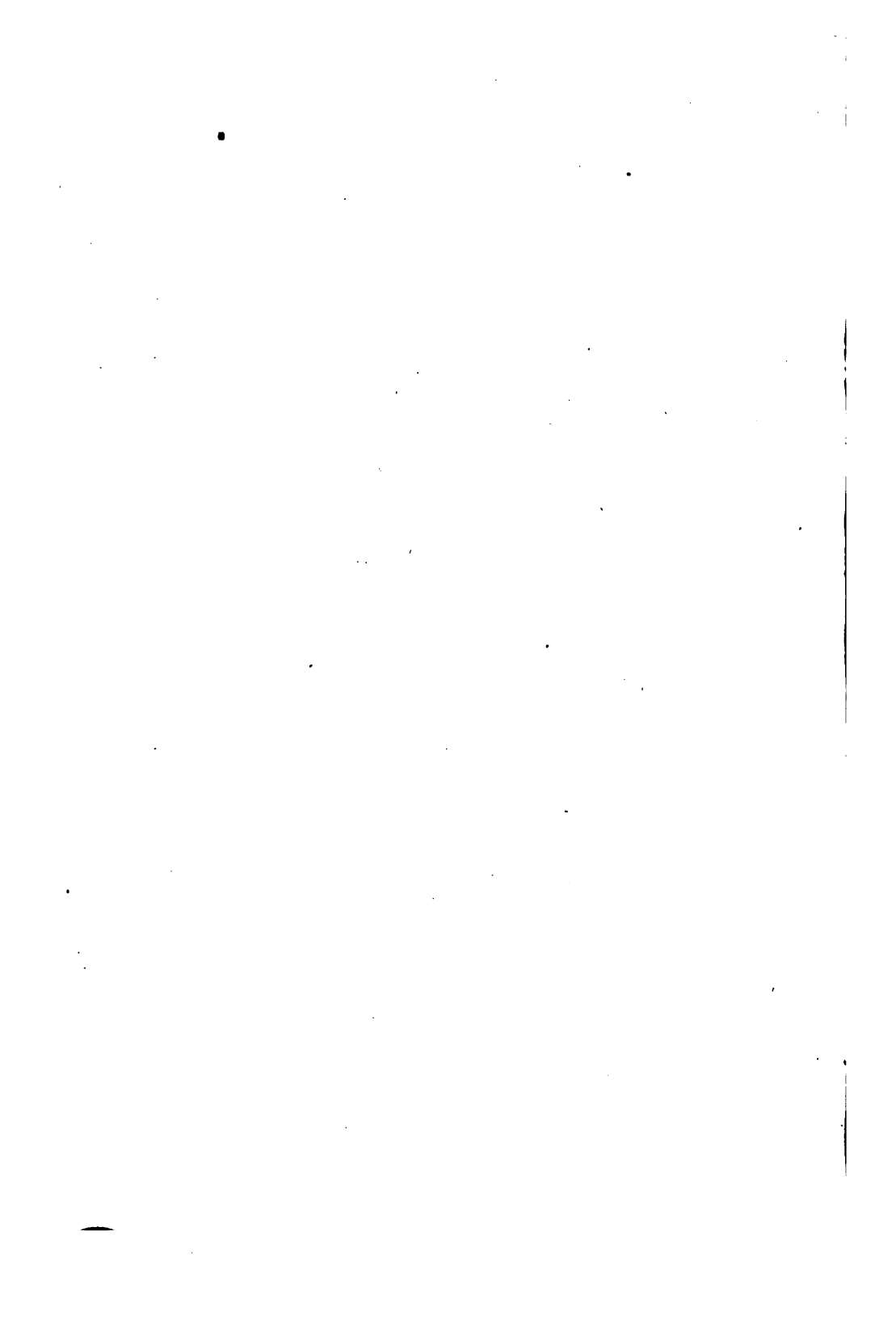
Nets and fishing spears were in common use amongst the natives of New South Wales when the colony was founded. White (Surgeon-General) in his journal describes a fishing spear with four prongs, the shaft consisting of two pieces, a large and small one joined together by the gum of the grass tree, and the head composed of four sticks inserted into the shaft (Fig. 1, Plate 47) with gum, and tied together above with strips of bark twine, which were afterwards tightened by little wedges driven within the bandage. Each of these sticks, or prongs, was terminated by the tooth of a fish, very sharp, stuck on by a lump of this grasstree gum, which is insoluble in water.

In catching turtle in Endeavor river, lat. 14° S., about long. 145° E., they have a peg of wood which is about a foot long and well barbed; this fits into a socket at the end of a staff of light wood, about as thick as a man's wrist and about 7ft. or 8ft. long; to the staff is tied one end of a loose line about three or four fathoms long, the other end of which is fastened to the peg.

* Brough Smyth.

† Capt. King's Survey, Vol. I.





To strike the turtle the peg is fixed into the socket, and when it has entered its body and is retained there by the barb the staff flies off and serves for a float to trace the victim in the water; it assists also to tire the turtle till they can overtake it with their canoes and haul it ashore. Their lines are from the thickness of a $\frac{1}{4}$ in. rope to the fineness of a hair, and are made of a vegetable fibre.* In Rockingham Bay, lat. 18° S., long. 145° E., the float is a piece of light buoyant wood, the staff being retained in the hand when the turtle is struck. (Plate 47, Fig. 3.)

Mr. Jardine, in his little work "Description of Somerset and Neighborhood," on the Cape York Peninsula, gives an account of another mode of catching turtles by the blacks who use a species of sucking fish. He says:—"On the occasion I allude to two of these sucking fish were caught by the blacks in the small pools in a coral reef, care being taken not to injure them. They were laid in the bottom of a canoe and covered with wet seaweed, a strong fishing line having been previously made fast to the tail of each. Four men then went in the canoe—one steering with a paddle in the stern, one paddling on either side, and one in front looking out for the turtle and attending to the fishing lines, while I sat on a sort of stage fixed amidships, supported by the outrigger poles. The day was very calm and warm, and the canoe was allowed to drift with the current, which runs very strong on these shores. A small turtle was seen and the sucking fish was put into the water. At first it swam lazily about, apparently recovering the strength which it had lost by removal from its native element; but presently it swam slowly in the direction of the turtle till out of sight. In a very short time the line was rapidly carried out, there was a jerk, and the turtle was fast. The line was handled gently for two or three minutes, the steersman causing the canoe to follow the course of the turtle with great dexterity. It was soon exhausted and hauled up to the canoe. It was a small turtle, weighing a little under 40lbs.; but to which the sucking fish adhered so tenaciously as to raise it from the ground when held up by the tail, and this for some time after being taken out of the water. I have seen turtle weighing more than 100lbs. which had been taken in the same manner. Though large numbers of the hawksbill turtle are taken by the Cape York natives, it is very difficult to procure the shell from them; they are either too lazy to save it, or, if they do so, it is bartered to the islanders of Torres Straits, who use it for making masks and other ornaments."

In line fishing from their bark canoes (see Plate 48, Fig. 1) the natives exercised great ingenuity in the manufacture of the hook of

* Hawkesworth's Coll., Vol. III., p. 232.

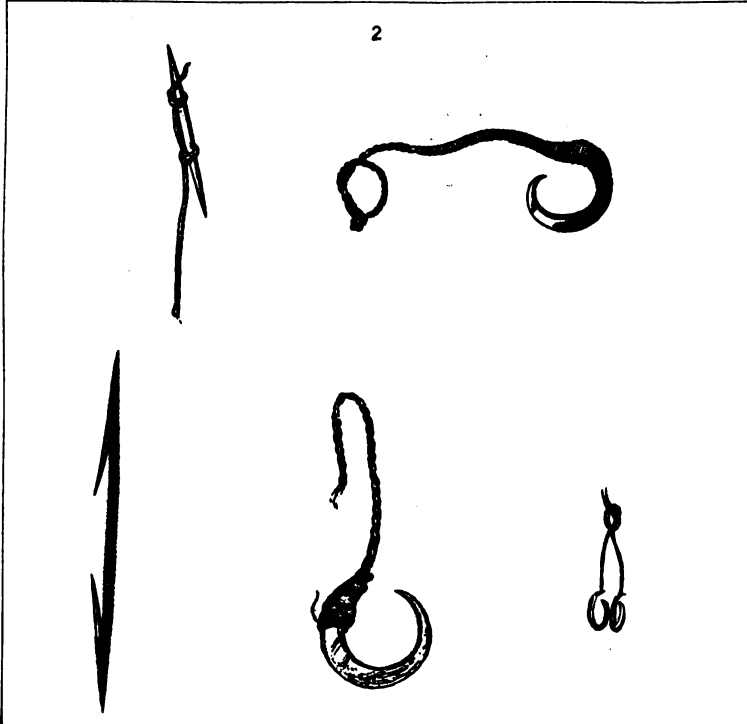
the shell of the turtle, mussel, pearl oyster, razorfish, bone, wood, &c. As soon as they were able to get hooks of European manufacture they ceased to make them of their own materials. The fish-hooks shown in this illustration (Fig. 2) are made of bone. The small one is very sharp at both ends, and is attached to a line by a hitch-knot. It cannot be called a hook. It was, however, baited at both ends, and when seized by the fish and the line strained the sharp point of bone stuck in the jaws, and the fish was secured. A curious implement was also used, formed of hard wood sharpened at each end and barbed. The barbs were fastened on with fibre, generally made from a vegetable substance. The larger of the two curved fish-hooks was made of bone; the lesser one was made out of a shell. Both of them were securely and neatly attached to the cord with twine made from a vegetable substance.* Captain King related that on the south side of Port Bowen one of the natives gave Mr. Roe a fishing-line spun and twisted from strips of bark, to which was attached a hook made from a turtle shell.

NATIVES FISHING FOR CRAYFISH.

The method adopted by the blacks in South Australia when fishing for freshwater crayfish is as follows:—The fisher puts between his teeth an ordinary rush bag, to hold the crayfish, which he first dislodges with his toes and then catches them with his hands, bagging them rapidly. (Plate 49.)

* The Aborigines of Victoria.





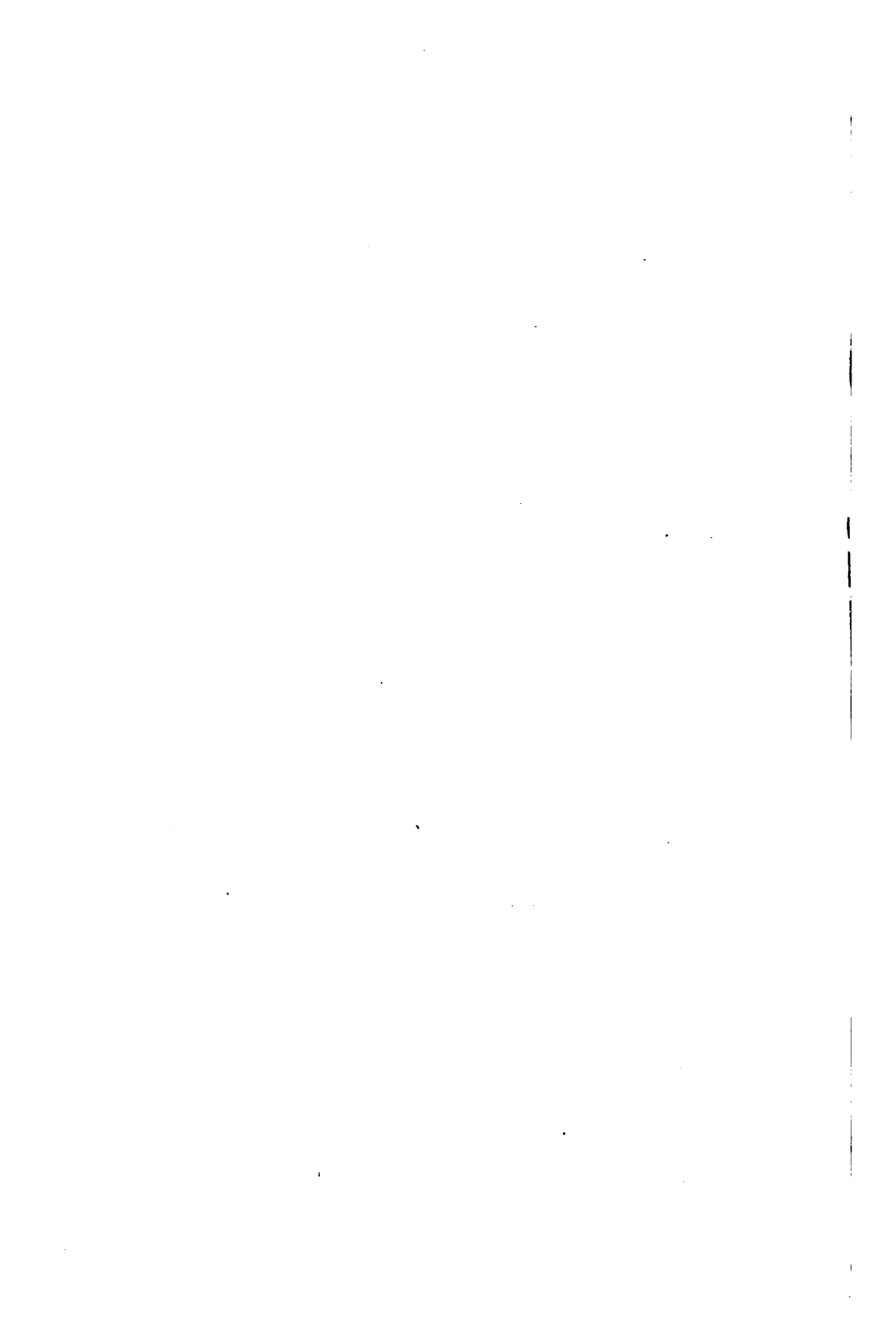
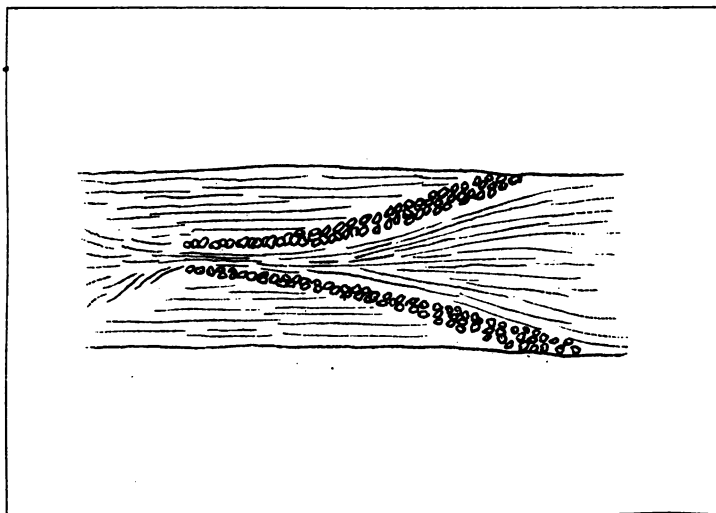


Plate 49.



Plate 50.



CHAPTER VIII.

ROAD-MAKING.

In the work of road-making little can be said in their favor, as this labor consisted in removing obstructions rather than in constructing pathways for pedestrian traffic; for beasts of burthen they never appear to have had. Mr. A. C. Gregory, when in search of Leichardt in 1858, and when nearing Cooper's Creek, mentions the only instance which ever came under his observation where the aborigines had taken the trouble to remove natural obstacles from their paths. The loose stones had been cleared from the track, and placed in high heaps. Mr. Ernest Giles, in lat. $30^{\circ} 43'$, long. $132^{\circ} 44'$, was surprised to find on the top of a hill a broad path which had been cleared some dozens of yards, an oak tree at each end being the terminal point. At the foot of each tree the largest stones were heaped, the whole path being indented by the trappings of many natives' feet. On his journey from Port Augusta to Fowler's Bay he found a somewhat similar path on the summit of a hill called Pondooty, where he descried an extraordinary line cut through the scrub, which ran in the direction of east by north. The timber of the scrub was all cut away and it looked like a survey line. The blackfellow whom he had with him could or would not give him any information as to the object intended by the work. Mr. Giles, when near Mount Russell, in the midst of a singular little glen, found several small heaps of stones placed at even distances apart, and, though the ground was once entirely covered, places like paths had been cleared between them. In the centre was a large, bare, flat rock about 2ft. high, like an altar as though adapted for sacrificial purposes.

Sir George Grey also speaks of regular beaten paths of the natives in North-Western Australia, quite equal to those that would be seen in England leading from a village to a farmhouse; and Captain Stokes speaks of finding well-beaten paths formed by the blacks, the ground being cleared of obstructions and well and smoothly beaten down.

QUARRYING.

Seeing the imperfect nature of the tools which the natives had to work with it could hardly be expected that so difficult an undertaking as the working of quarries should have been initiated, and yet there are numbers which have been opened and worked for

hundreds of years by the aborigines of Australia, and which have been utilised for one or more purposes. For instance, one has been opened and worked for mill stones with which to grind the various seeds (especially the nardoo seed) to produce food for the tribe; another has been wrought to procure stones suitable for tomahawks; and another for flints for spear-heads, or chisels, and other tools.

On the top of a gentle rise, about three and a half miles from Douglas's Well, and about seven miles north-west of Mount Douglas head station, on Messrs. Hogarth & Warren's run in South Australia, is the "Blackfellow's Quarry." This place is about 150ft. long by 20ft. wide and 12ft. deep; the stone is a gritty fissile quartzite, eminently suitable by its lightness and grinding properties for the nether stone used by the natives whenever they bruise or pound the various leguminous seeds they may collect. The upper stone so used was generally a large round pebble, about 4in. to 6in. in diameter, picked from the bottom or sides of some creek or watercourse. The nether stones removed from this quarry slightly varied in size, but yet very seldom exceeded 18in. long by 12in. in width and 3in. in thickness, and were slightly dished on the upper face. They are carried from camp to camp by the lubras, as the exigencies of the season require. One that is in my possession is a perfect oval in shape; it weighs $14\frac{1}{2}$ lbs., and is $19\frac{1}{2}$ in. long, $12\frac{1}{2}$ in. across, and $1\frac{1}{2}$ in. thick, the upper edges being beautifully bevelled off. I obtained it from the Murray natives at Overland Corner.

The quantity of stone removed from the Mount Douglas quarry equals 1,333 tons cubical measurement; and as the tribes are few in this part of the continent, and their members are in no case numerous, it will be seen that this quarry must have been worked for ages, and must have produced, allowing one-fourth for waste, some 71,000 stones for the use of the natives.

This is the only quarry for mill stones which has come under my own personal observation; but I do not doubt that there are others of a similar character in distant places, as the practice of preparing food by this mode is almost universal amongst the aborigines. Captain King noticed in Cambridge Gulf a large number of flattened stones with a smaller stone lying upon them, which the natives used for grinding the seeds of plants, and also for breaking shellfish. At Long Island he also found similar stones used for bruising the seeds of the fruit of a *sterculia*.

There is a large quarry thirty miles from Natal Downs station, with thousands of unfinished stone tomahawks lying about.

In reference to quarries for suitable material for spear-heads, Gregory relates seeing one on Roe's Downs, in lat. $17^{\circ} 0' 24''$,

where they followed a creek through basaltic plains with sandstone hills and ridges. The bed of the creek has been cut through the basalt into the sandstone, exposing a fine section of the two rocks. The sandstone was much altered at the line of contact, and, having been deeply cracked, the basalt had filled the fissures of the older rock. This hardened sandstone, and also a white quartz-like rock, are much used by the natives for the heads of their spears. Great quantities of broken stones and imperfect spear-heads were lying on the banks of the creek.

In some places in Victoria there are quarries where the natives in former times broke out the trappean rocks for hatchets. Large areas are covered with the *debris* resulting from their labors. In other parts of that colony there are sandstone quarries (where diorite or basalt are not to be found) from which hatchets were obtained. In New South Wales, and also in Western Australia, I have been informed that quarries exist from which hatchets have been obtained in large quantities.

At Mount William, near Lancefield, there is a large native quarry, from which was taken greenstone for the manufacture of tomahawks and spear-heads. It is extremely hard and tough, and well adapted for the purpose. My friend Mr. R. E. Johns, of North Fitzroy, now of Hamilton, Victoria, who supplied me with this information, adds that Mr. Derry, engineer to the Water Trust, found the site of a stone axe factory, marked by heaps of chips lying around large boulders, which appeared to have been used as anvils, at Wartook, in the Northern Grampians, near Horsham. He describes the material here as a whinstone, obtained from boulders near Wartook, but which he did not meet with near the factory. The local rock at this place is freestone. There is at the Ooraminna Rockhole abundant evidence of the manufacture of quartz knives, as shown by the *debris* around.

The ochre quarries are numerous, and disclose extensive excavations of this material, which must have been in use for untold ages, so general is it in all conditions of aboriginal life, whether in war or peace or in the sacred ceremonies of their mysterious rites; in this colony there is one for red ochre on the Onkaparinga, and another between Willunga and Aldinga.

WEIRS.

Great ingenuity is exercised by the blacks in the construction of weirs or dams; some are of clay, others—and by far the greater number—of stone, and some in the nature of wicker work formed of the pliant boughs of trees or shrubs. Captain King, in his survey

of Oyster Harbor, found the creeks and inlets in this harbor planted with weirs for the purpose of catching fish. Eleven of these were counted, one of them being 100yds. long, and projected towards the sea in a crescent shape 40yds. They were formed of stones placed so close together that any fish entering at high water would be unable to leave when the tide ebbed. He also saw similar description of weirs on the North-West Coast. The mouths of the creeks on the coast near Muiron Island were seen to be planted with the same kind of stone weirs as those found at Oyster Harbor.

Lieutenant Oxley, in his explorations in New South Wales, found similar weirs constructed in the bed of the Lachlan river; and Sir Thomas Mitchell, in his "Australian Explorations," relates that his party saw some natives in an ana-branch of the River Murray, but who were so frightened at the appearance of white men and the animals they had with them that so soon as the explorers were observed the blacks escaped into the bush; and although the native guide they had with them cried to them to stop, they could not be induced to do so. "Mr. Stapylton (one of the party) observed in the channel where the natives had been they had that morning set up one of these weirs or fences of boughs, which showed, not only that they expected a flood, but also, from the manner in which it was placed, that the water would first flow up the channel, which is not unusual in ana-branches, where the lower end is naturally on a lower level, being worn by the currents into a deeper channel than at the upper end, where the water not unfrequently leaves the river by overflowing its banks in various channels of small depth."

Near the junction of the Thomson and Barcoo rivers the natives build dams of stone for the capture of fish; and also in the Barwon and Brewarrina. These are constructed of large stones; the walls—for there are a number of them—are irregular in their course, and enclose spaces which convey an impression of the walls, rooms, passages, and courts of a large building. When the river is in flood they are submerged many feet below the surface; but when in summer the water sinks to a low level the walls form a sort of labyrinth in which the fish lose their way, become bewildered in their efforts to escape, and so are easily captured.* Messrs. Tietkens and Young found a stone dam, the work of the natives, in lat. $28^{\circ} 52' 10''$, long. $131^{\circ} 31' 8''$.

Captain Sturt, in his memorable journey of 1844, camped on an ana-branch of the River Darling, where he saw the natives had made at the head of the water a weir of boughs from the trees on the banks, through which the current was running like a sluice;

* The Australian Race, Vol. III.

but the further progress of the flood had been effectively stopped by a dam composed of earth and stones, which the natives had gradually thrown up athwart the channel. Mr. Ernest Giles records in his "Journal of Forgotten Expeditions" that when in lat. $30^{\circ} 43'$, long. $132^{\circ} 44'$, he was taken by his native boy to see a dam, which he thus describes—"The moon had risen above the high sandhills which surrounded us, and we soon emerged upon a piece of open ground, where there was a large white claypan (a bare patch of white clay soil) glistening in the moon's rays, and upon which there appeared a most astonishing object, something like the wall of an old house or a ruined chimney. On arriving at it we saw that it was a circular wall or dam of clay, nearly 5ft. high, with a segment open to the south to admit and retain the rainwater that occasionally flows over the flat into this artificial receptacle. This wall or dam constructed by the aborigines is the first piece of work of art or usefulness that I have ever seen in Australia, and if I had only heard of it I should seriously have reflected upon the credibility of my informant, because attempts of skill or ingenuity on the part of Australian natives in any way applied to building or storing of water have never previously been met with, and I was very much astonished at beholding it now. This piece of work was 2ft. thick on the top of the wall, 20yds. in the length of its sweep, and at the bottom, where the water lodged, the embankment was nearly 5ft. thick. The clay of which this dam was built had been dug out of a hole in which the water lay with small native wooden shovels, and piled up to its present dimensions." Mr. Giles, on more than one occasion afterwards, in his explorations of the interior, had occasion to thank "the native ingenuity" which had constructed these works of usefulness in a dry and barren country, for on his first journey from Fowler's Bay to Perth himself and party were saved from death by thirst by a similar native dam in the desert country 156 miles west of Ooldabinna, which they found providentially contained a quantity of yellow water. The dimensions of this little dam were about 3ft. deep, by 8ft. long, by 3ft. wide. In form it was elliptical, and the water had evidently shrunk very much, as the highest water-mark was at least 3ft. above the surface when he came upon it.

In Arnheim Land, on the northern coast of the continent, Mr. D. Lindsay describes a weir and trap, made of supple jack woven like a basket, 18ft. in length, and gradually tapering from 3ft. wide at its mouth to 6in. at the other end, and quite an ingenious contrivance. It was in a tidal salt-water creek, which was staked across, the stakes being interwoven with pliable sticks, leaving at one side a

hole, to which the mouth of the trap was fixed. As the tide recedes the fish coming out with it find a barrier, when with a rush they go through the wide opening to discover a blackfellow at the smaller end ready to pop them into his basket as they come through.

Scott's Creek, about 360 miles south from the Gulf of Carpentaria, in lat. 27° S. and long. 141° E., has a very fine stone dam erected by the natives, where McKinley, in his search for Burke and his party, spent some time to recruit, and in the impounded waters they caught large quantities of fish. In Western Australia, also, fish were often entrapped in weirs made of brush-wood interlaced between poles from 3ft. to 6ft. in depth.

Mr. Gideon S. Lang gives a description of a singular work of art constructed by the aborigines. He says:—"The great weir for catching fish on the Upper Darling, called Breewarner, is, both for conception and execution, one of the most extraordinary works recorded of any savage tribe, and independent of another described by Murrell, the shipwrecked mariner, who passed seventeen years among them, is quite sufficient to prove their capacity to construct works on a large scale. This weir (Breewarner) is about sixty-five miles above the township of Burke. It is built at a rocky part of the river, from 80yds. to 100yds. in width, and extends about 100yds. of the river course. It forms one immense labyrinth of stone walls, about 3ft. or 4ft. high, forming circles from 2ft. to 4ft. in diameter, some opening into each other, forming very crooked but continuous passages, others having one entrance only. In floods as much as 20ft. of water sweeps over them and carries away the tops of the walls; the lower parts of the walls, however, are so solidly and skilfully built with large, heavy stones, which must have been brought from a considerable distance and with great combined labor, that they have stood every flood from time immemorial. Every summer this labyrinth is repaired, and the fish in going up or down the river enter it, get confused in its mazes, and are caught by the blacks by hand in immense quantities."* (Plate 50.)

WELL-SINKING.

The Australian native has not been credited with the inventive faculty, or at least with a large development of that faculty; but that has arisen from the non-acquaintance of the writers with the native in his primitive state. Too much credence has been given to stories originating with persons who have professed to have a knowledge of him and his customs and manners, but

* The Aborigines of Australia, 1865.

whose information has only been gained round the camp fire. In the matter of the procuration or preservation of water he has seldom been credited with the means of so doing; yet nothing could be farther from the actual fact, for we have had already much evidence to the contrary in the construction of weirs and dams.

Captain Sturt had penetrated and, indeed, passed through the Stony Desert when he observed in the bed of a creek two magnificent trees. Beneath these trees a mound of earth had been thrown up, on reaching which he discovered a well of very unusual dimensions, and, as there was water in it, he camped for the night. On a close examination of the locality next morning the well appeared to be of great value to the inhabitants, being 22ft. deep and 8ft. broad at the top. There was a landing place, but no steps down to it; and a recess had been made to hold the water. The fact of there being so large a well at this point (a work, he says, that must have required a powerful tribe to complete) assured him that this distant part of the interior, however apparently useless and forbidding to civilised man, was yet not without inhabitants; but, at the same time, it plainly indicated that water must be very scarce.

The same explorer, after leaving Eyre's Creek, near the Stony Desert, saw some natives, from which he assumed that there must be water in the neighborhood, and directed his second in command (Mr. Brown) to run the track down that they had made when, at a distance of about half a mile farther on he came upon a large well, similar to the one before described, on the north side of the desert, but not of the same dimensions. This well was 9ft. deep, and showed a succession of strata, as follows:—Four feet of good alluvial soil, 3ft. of white clay, and 2ft. of sea sand. As there was but little water there it was not worth his while to stop.

The natives also dig wells in a desert which lies to the west of the Kulkadoon country, extending westward as far as the Overland Telegraph line. They are, as a rule, funnel-shaped, much larger at the top than at the bottom, and the walls are supported by wood or other material. The water is reached by rude deep steps winding round the wells, and the depth varies from 3ft. to 30ft.* Giles, when in the Vale of Tempe, came upon a native well of splendid water, which gave a good supply; near Mount Quinn he found another well which they had fenced in. He also came across a third in a little glen close to Krichauff Creek, and not far from Ayers' Range he found two more with good

* The Australian Race, Vol. II.

water in them. Near Glen Osborne Giles observed that the natives had dug circular pits at the base of the trunk of the mulga trees, and had then tapped the trees at the taproot, and caught the water flowing from them in circular pits they had made for the purpose.

CHANNELS WITH DAMS, LAKE CONDAH.

An aboriginal work of great ingenuity and some engineering skill has lately been discovered at the Great Condah Swamp, situate between Hamilton, in the western part of Victoria, and Portland Bay, the execution of which with the inadequate means at their command reflects the greatest credit on their industry, skill, and perseverance. I will let Mr. Alexander Ingram, the engineer in charge of the reclamation works there, tell the story of it in his own words:—"At the south-western point of Lake Condah (where it overflows down the valley of Darlot's Creek along the margin of the rough stony ground, there joining the permanent stream at the Condah mission station) is situated one of the largest and most remarkable aboriginal fisheries in the western district of Victoria. The position has been very well chosen, as the small bay is the lowest point on the western side of the lake. Owing to the peculiar formation (open trap scoriae) along the eastern, southern, and part of the western sides of the lake, the water sinks very rapidly and becomes very low during summer months, but as it receives the drainage of a large extent of country the water rises very quickly during winter, and first flows into the scoriae at the point named, which has been facilitated to some extent by the channels formed by the aborigines for trapping eels, trout, &c. These channels have been made by removing loose stones and portions of the more solid rocks between the ridges and lowest places, also by constructing low wing walls to concentrate the streams. At suitable places are erected stone barricades with timber built in so as to form openings of from 1ft. to 2ft. wide; behind these openings were secured long narrow bag nets made of strong rushes. The mouths of the nets were from 2ft. to 3ft. wide secured to a hoop. They were of various lengths, some 10ft. long, the principal portion being about 4in. or 5in. in diameter. The smallest ends were made to open so that the eels, &c., could be easily extracted. There are also numerous smaller fisheries constructed in suitable places in small bays and outlets where the water sinks into the trap scoriae down along the margin of the valley of Darlot's Creek. Across this valley, at suitable places, were erected large barricades constructed with strong forked stakes,

horizontal spars, and vertical stakes strengthened with piles of stones; openings were also left in these. Many of the aborigines residing at the Lake Condah mission station still construct similar barricades for trapping purposes, and large quantities of fish are secured during winter, more particularly since an outlet drain has been made in connection with the drainage of Condah Swamp."

This is a work of undoubted antiquity, but to what remote period of time it owes its origin no one will ever know. It stands as a dateless monument of incredible labor visible through the volcanic debris discharged from Mounts Eccles and Napier, and the work and its design were worthy of their builders. Several stone axes and other implements have been found in and around the drains, indicating that the neighborhood must have been at one time a very populous one. My friend Mr. Johns, writing to me on the same subject, says:—"In November, 1892, while cutting a drain about ten miles from Lake Condah, a quantity of human bones and a stone implement (nearly globular in form and about 2½ in. in diameter) were found at a depth of more than 6 ft. from the surface, about 3 ft. 6 in. of which consisted of decayed tea-tree and peat, and the remaining 2 ft. 6 in. of soft, clayey, whitish limestone. At the request of Mr. Alex. Ingram, the officer in charge of the reclamation works, the men were instructed to note other signs of old excavation, with the result that several graves were found near the first, each being about 4 ft. long by 2 ft. 6 in. wide. Unfortunately, these were not explored, and their depth and contents remain unknown. They must, however, have been deeper than the first, and were probably ancient, as the peat accumulates slowly. Within half a mile of where the bones were found, and near a large waterhole in a fine permanent stream known as 'The River,' are the remains of an old aboriginal camping-place, the name of which is *Narrarrabeen*, consisting of about twenty stone foundations, of horsehoe form, from 4 ft. to 7 ft. in diameter, and opening towards the east, a point from which the wind rarely blows. They are built among the loose blocks of cellular basalt, and appear to have been made by piling the stones removed to level the floor into a dry-stone wall about 1 ft. high on the western or windward side. On this foundation—Mr. Ingram learned from Tommy White, a civilised aboriginal, who had been born at a similar camping-place (called by the blacks *Allumyung*, about a quarter of a mile higher up the river, near the point at which it issues from beneath the basalt)—the ordinary mia-mia of branches and bark was erected. In the forest, not far distant, is another old camping-ground, called *Eullameet*. Similar stone foundations

are found among the rough basalt around Mount Eccles and Lake Gorrie. A large portion of the district is swampy, and appears to have been an ancient and favorite aboriginal settlement, judging from the number and size of the 'native ovens,' one of which, near Croxton, is about 5ft. in height and 100ft. in diameter. These were used as hiding-places for the heavier stone implements, which it was not convenient to carry about, and as burial-places, as many as seven skeletons having been taken out of one of them. The plentiful supply of food, consequent on the permanence and abundance of water, was probably the chief attraction, the swamps swarming with eels and being frequented by large numbers of waterfowl, while emu, kangaroo, wallaby, and opossums were very numerous. In addition, the loose, rough blocks of basalt, with which many square miles of the country near the swamps are covered, rendered attack or pursuit by enemies very difficult.

"The nets used by the aborigines of Condah for catching eels in their canals were not woven in meshes, but were made of rushes in the same manner as their baskets and mats, though with much wider open spaces between the rush ropes to admit of the free passage of water through them. They consisted of a flat part, a little over 2ft. in diameter, kept in shape by a light sapling hoop, from the centre of which opened a bag, about 5in. in diameter, but expanding a little at the end; and 3ft. to 9ft. long. The hoop was fixed in one of the places made for the purpose with the long bag, extending down stream, so as to catch all fish going down the canal, which accumulated in the expanded end until emptied out by the fishers."

The late Surveyor-General for South Australia (G. W. Goyder, Esq., C.M.G.) informs me that there are native drains of a somewhat similar character near Martin's Wells, on the Coorong, with dams of the same nature. These, however, which extend for 100yds., were intended for catching, in fine close nets, a very small fish, called by the natives of that locality *lap-lap*, which they use, not for food, but as bait when trying for the larger fish in the Coorong waters.

At a place which, if I remember rightly, my native guide told me was called Arcoona (situated about seventy miles west of Lake Torrens, in the midst of a dense mallee scrub) was an open space of about sixty or seventy acres, almost circular in form. On the fringe of the mallee, and well in the shade around the whole place, were mounds of bones of animals and shells of native fruits, particularly the quondong or native peach, all of which had been broken or bruised by large stones still left there.

From these large accumulated remnants of native feasts and the great age of many of the bones, which crumbled into dust when touched, this place must have been for ages the favorite resort of native tribes for enjoyment of the spoils of the chase. The most remarkable feature, however, in this spot was a hard limestone crust which was raised almost like a small mound about the middle of this open space. Through the highest point of this hard limestone surface the natives had sunk a well 12ft. deep, had then in a westerly direction cut a drive 10ft. long, and tapped a most delicious spring of cool water, the supply of which seemed to myself and party to be inexhaustible. Down the sides of the well holes for the hands and feet had been cut in the hard limestone rock to give facility of access to the water.

Dr. E. C. Stirling, C.M.G., in his paper read to the Royal Society of South Australia, 1892, on the habits and customs of the the Chingalee tribe of the Northern Territory, speaking of the water supply, says :—"These aborigines are by no means solely dependent upon the creeks for their water supply, as they have shallow wells in various parts of the scrub twelve and fifteen miles distant from the watercourses. One of these native wells is remarkable as regards its construction, being sunk vertically for 8ft., and then a drive was run for 6ft."

Mr. R. E. Johns, of Hamilton, wrote me that a friend of his—Mr. Hill, of Nathalia, Victoria—crossed the desert country in the north-west of that colony a good many years ago, and that he there saw several of these wells, which were, however, then dry. He said they were rather tanks than wells, being made to hold the storm water, which was led into them by surface drains. They were sunk in hard clay, which was composed of many thin beds of different colors arranged horizontally, and were from 4ft. to 8ft. deep, perfectly circular, most accurately sunk, and the bottoms made concave, so that the last drops of water might be more easily baled out. The bushes around the edges of these "wells" had been twined, apparently by art, into dome-shaped arbors over them.

STONE WALL.

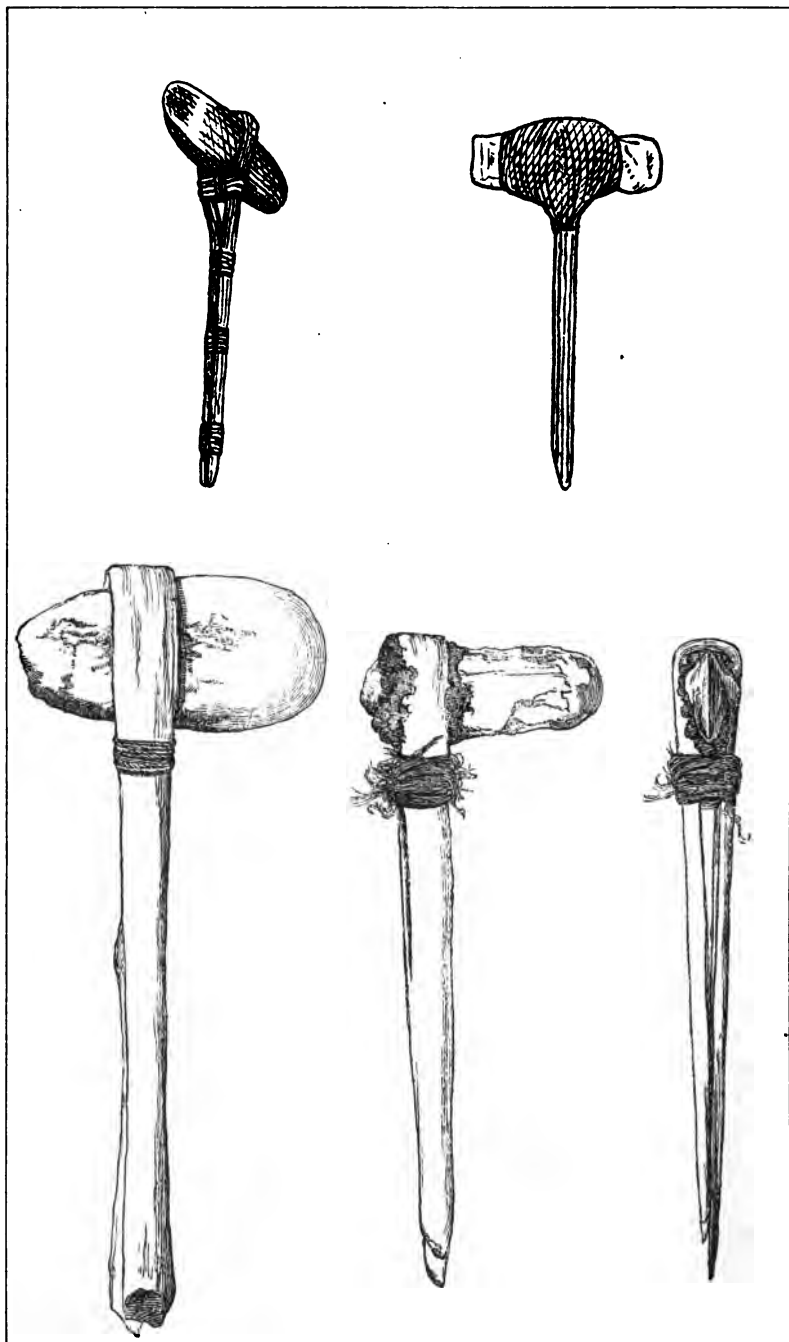
Mr. Bradshaw, in the interesting paper he read before the Royal Geographical Society of Australasia, in Melbourne, in September, 1890, said :—"The camp having been pitched early in the afternoon on one of the tributaries of the Prince Regent river, Mr. Allen and I took fresh horses and rode for several miles to the south-west. We saw a spacious pool of water at the bottom of a beautiful valley, contiguous to which was a large and nearly horizontal slab of

sandstone rock, probably 900 sq. yds. in extent. In the middle of this the aborigines had formed a circle of large stones 12ft. in diameter. At the centre of this circle was an oblong stone structure, about 5ft. long and 3ft. wide and nearly 2ft. high, which, from the burnt appearance of the stones and quantity of ashes and cinders in the vicinity, was evidently used from time to time as an oven, or perhaps an altar. Passing this curious spot, we rode for about a mile further up a very steep incline, and, finding the rise of the country becoming too precipitous for horse travelling, we secured our nags under a group of box trees, and proceeded to ascend the mountain in front of us on foot." Two days afterwards, travelling in a northerly direction, he came upon a remarkable wall. He said :—" Nearly half the following day was wasted in getting our train across the sandstone range, although it was not more than half a mile wide at its greatest breadth. A little valley issuing out of the range on the lower side had its outlet obstructed by an artificial stone wall that had evidently been in existence for many years, as large trees had grown round it. It was about two chains long, reaching from one bank of the valley to the other, and originally had been between 4ft. and 5ft. high. Some of its lower stones would weigh fully a hundredweight. I could form no conjecture as to what purpose it had been intended for. It was not nearly high enough to be of service as a kangaroo or wallaby battue, as those animals would readily vault over it."

TOOLS.

The aborigines on some of the tributaries of the great River Murray, and also some of the tribes in the interior, have fashioned for themselves out of very hard wood small wooden shovels with which they dig up the roots of the wild parsnip and of other plants for food. On the Bogan river Sir Thomas Mitchell came upon some huts, from which the natives in their terror at the first sight of white men fled, leaving their fire still burning. Here were found some stone hatchets, carved boomerangs, and for the first time they saw some small wooden spades or shovels. Almost as soon as a native child can walk a little wooden shovel is placed in its hands, and it is thus early taught to dig out roots and the larvæ of ant hills. The women also have to carry on their backs (besides their children) bags containing all the things they and the men possess, consisting of nets for the hair, for catching fish or ducks, and small boomerangs and shovels for the men, themselves, or the children. When this party were camped on the Goobang Creek, near Mount Wollar, they saw several little wooden shovels (like





those amongst the Bogan tribe); and also at Lake Lonsdale, where the natives stole from these explorers one of their tomahawks, but left some shovels behind.

Similar implements have been found amongst the tribes near the DeGrey river in Western Australia.

Scoops fashioned out of wood were very common in the interior and amongst the tribes on the Darling and Murray rivers.

Plate 51 shows a native stone axe fastened in the handle ready for use. Two of the heads of similar tools in my possession are of a very hard stone rubbed down at one end to form the cutting edge; the larger one measures 4in. in length by $2\frac{1}{2}$ in. by 1in. in thickness. The lesser had evidently been used by a child, as it measures only $2\frac{1}{2}$ in. in length by $1\frac{3}{4}$ in. in width and $\frac{1}{2}$ in. in thickness. The handles of these implements are either made of elastic wood, split or of a small supple branch of a tree, which, being bent round the middle of the stone and the extremities brought together, are strongly bound with strips of bark or sinews of animals and cemented together with gum, exactly like a smith's chisel is held by a hazel wand in other parts of the world. With the axe or tomahawk the native cuts his shields, clubs, spear-heads, and boomerangs, roughly dressing them down before he uses the shell or quartz to finish them off.

With the tomahawk he also cut the branches or stripped the bark for his wurley or his canoe, and with it he hollowed out canoes, with the further aid of fire, and made his cooliman for the carriage of water for long distances. With its aid also he ascended the tallest gums and cut out the honey or the opossum, &c., from the hollow trees, and used it in many ways that are now forgotten by his children. (Plate 51.)

In the collection of Mr. R. E. Johns, of Hamilton, Victoria, is a large number of native axes. One of them was found near Avoca in that colony. It is $6\frac{1}{2}$ in. long and weighs 2lbs. $5\frac{1}{2}$ ozs. The material is hard micaceous schist of the neighbouring Pyrenees. There are two well-marked grooves for the handles to fit in.

In the collection of Mr. Begg, principal of the Hamilton Academy, is the largest native axe Mr. Johns has ever seen, and weighs 7lbs. 9ozs. It was found at Buckley's Swamp, near Hamilton. The material is moderately hard granular igneous rock. The whole surface has been dressed to shape, the edge rubbed to the usual degree of sharpness, and a well-defined groove for the handle cut round the head. Like most axes with such grooves, the edge is nearer one side than the other. It measures $9\frac{1}{2}$ in. long by $5\frac{1}{2}$ in. wide.

The following very remarkable form of stone hatchet or tomahawk is believed to be unique and hitherto undescribed. Mr. Etheridge, of the Geological Survey, Sydney, says, in a paper read by him before the Linnean Society in that city:—"It consists of a head of stone perfectly resembling in shape the stone mika knives, but composed of a hard, close-grained, rather flesh-colored granular quartzite, and produced by fracture. The heads, of which there are two, are generally similar to the stone-headed spears from North Australia. One of the axe-heads is 8in. long and the other 7in., the longer being 2in. wide at the base and the shorter 2½in. One face of each is practically flat, the other strongly angular in the middle line. In the shorter of the two this line is replaced by a facet towards the base of the axe. The heads are mounted in withys, artificially grooved, and passed round their bases, formed of some tough fibrous plants, and secured by a mass of gum. One of the handles is 19in. long and the other 18in., the two parts being held together near the middle and at the free extremities, which are pointed, by string, and again secured by gum. On the whole, these weapons, although ill-balanced, are formidable and capable of dealing a most destructive blow. The method of hafting clearly marks these weapons as axes or hatchets, but the entire departure from the ordinary form of mogo, or tomahawk, is a most interesting point. The two halves of the handles are twice tied, as is usual in such weapons, but at the end and in the middle instead of under the head and at the end." (Plate 52, Fig. 1.)

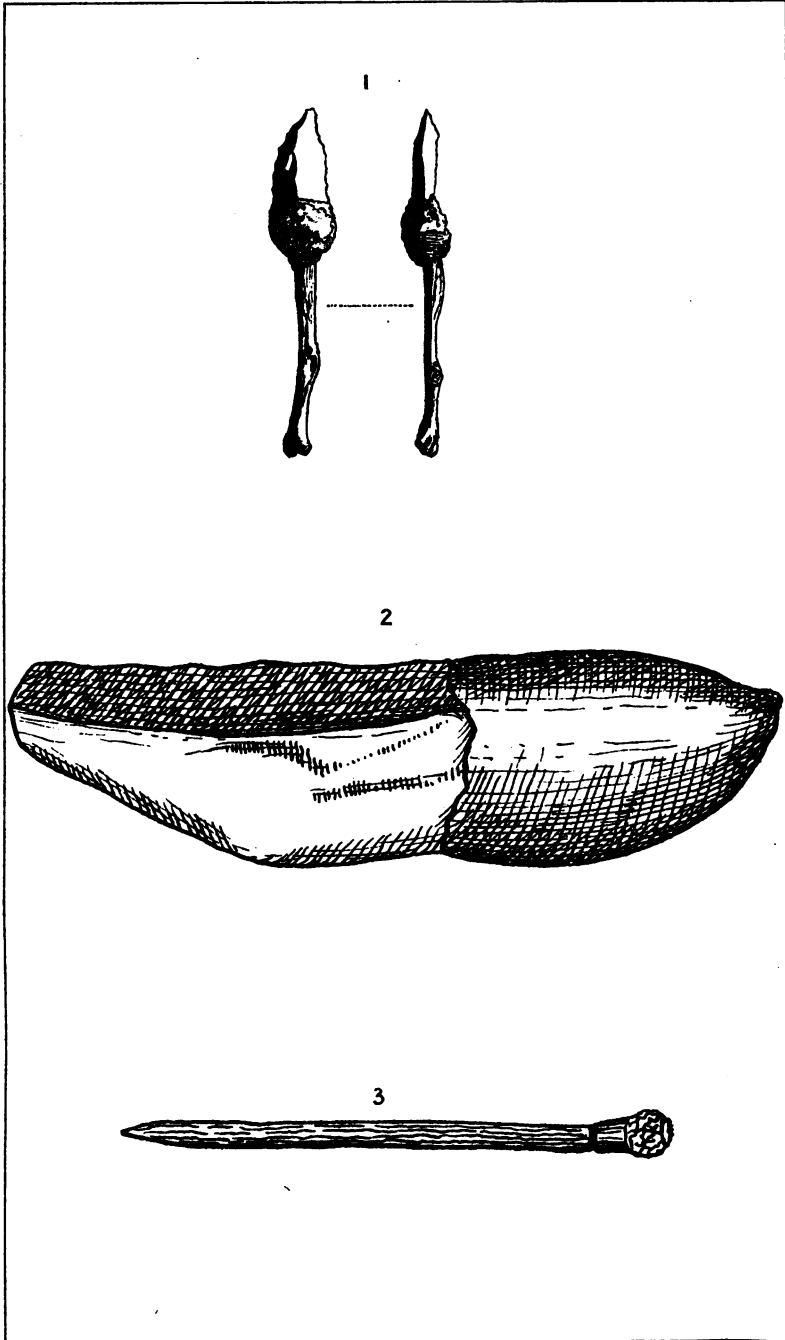
The tomahawk head shown in Plate 52, Fig. 2, is of black basalt, from the Lennard river, Kimberley, slightly reduced from its full size. It is ground towards the cutting extremity, and the original thickness and bulk has been reduced by knocking off flakes from both of its sides.

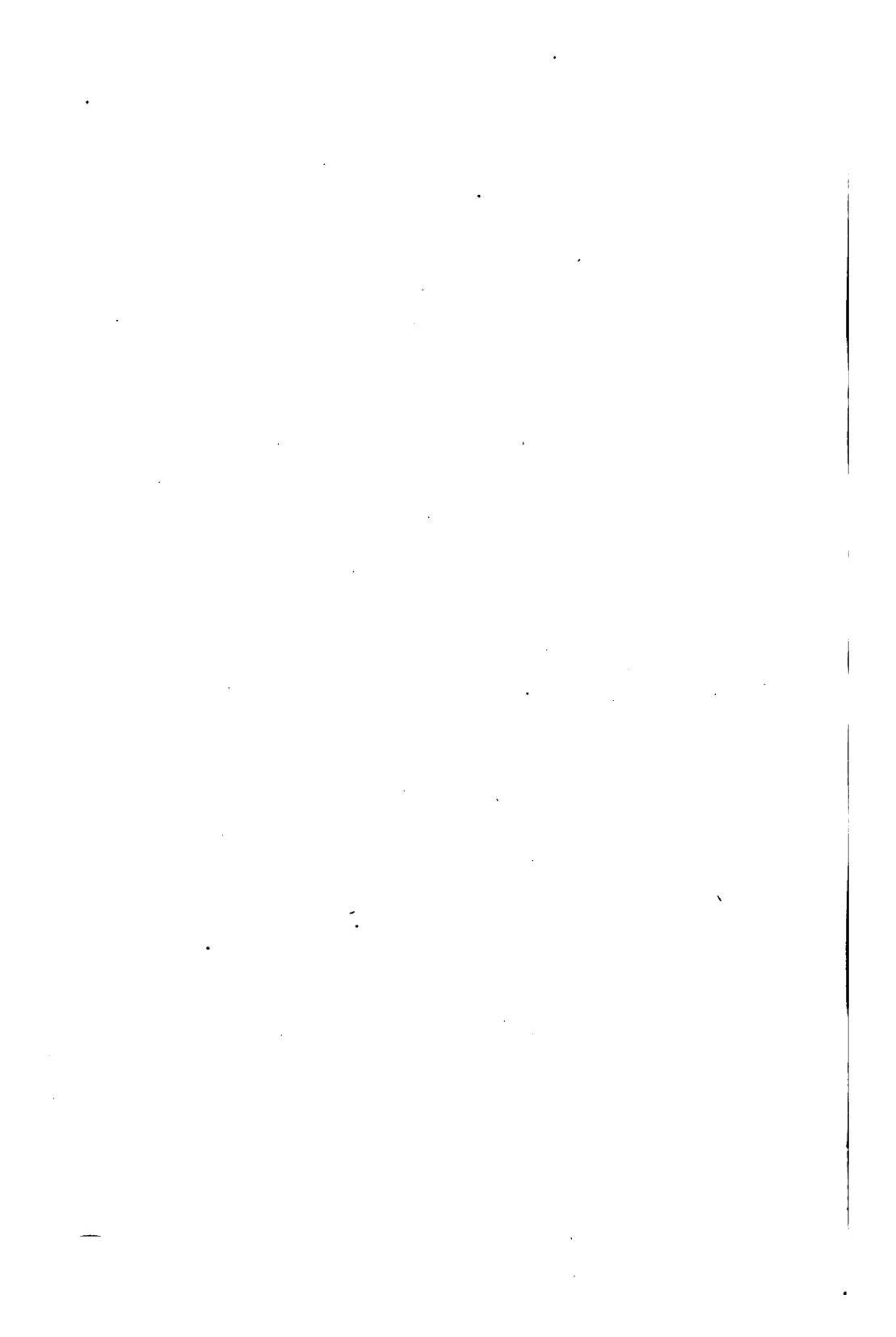
CHISELS, KNIVES, ETC.

Knives, or instruments so called, were made either of quartz, flint, or other hard stone. In some cases a piece of hard wood was obtained, one edge being grooved down, into which sharp bits of quartz or flint were fixed with gum in a manner like these shown in Fig. 1, Plate 53. In others, the quartz or flint was fixed on to a short piece of wood like the handle of a knife. The one in my possession has been used in the rite of circumcision by the River Finke tribe; its handle of wood is covered with gum from the grasstree. Fig. 2, Plate 53, is an exact representation of it.

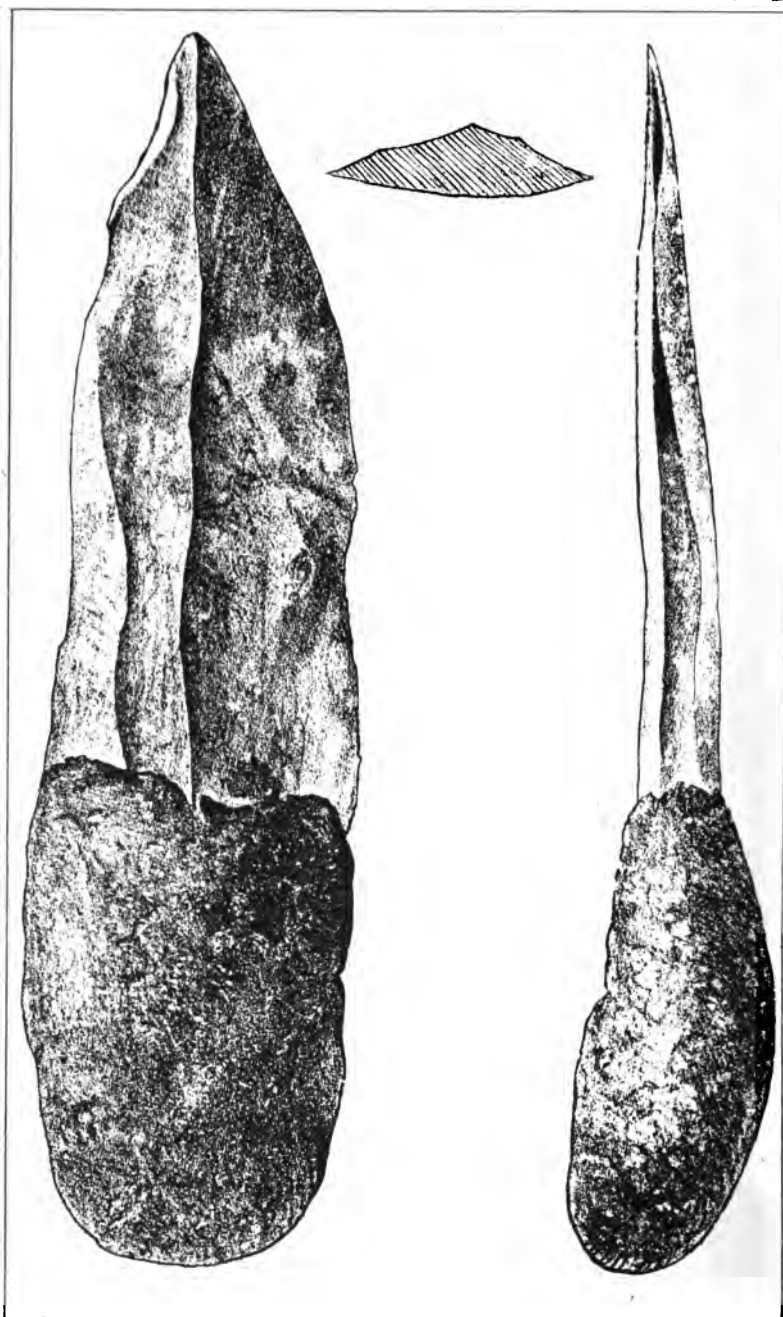
The chisel is in general use throughout the whole continent; it is made by fixing into the end of a rough handle of wood, by











means of twine and gum, a sharp piece of flint, quartz, or stone, and is used by the native just as a carpenter would point his large pencil with one of his chisels. It is employed in pointing his spears, finishing and carving of his shields, clubs, and boomerangs and other implements, although the last touches of the artist to his best works are done by means of shells or fine-pointed bones. Pieces of flint, &c., are frequently fixed on the inner end of the wommerah, and thus this implement answers two purposes, viz., that of an instrument used in war or the chase and that of a chisel. (Plate 53, Fig. 3.)

I have one in my possession of this kind. Another form of the chisel used in cutting the parallel grooves in their weapons and in ornamenting their shields is made of the under jaw and tooth of the opossum.

In the "Proceedings of the Linnean Society of New South Wales," for 1890, part the second, Mr. R. Etheridge, jun., palæontologist to the Australian Museum, Sydney, says:—"I am indebted to the kindness of Mr. H. S. W. Crummer, of the Department of Lands, Sydney, for an opportunity of describing the stone implement, or knife, used by the blacks of Mulligan river in performing the curious rite known as the 'Mika', or, as it is sometimes written 'Mikæ' operation" The instrument used is a sharp stone, which is preserved afterwards with much secrecy. (Plate 54.)

"The Mulligan river knife consists of a slightly altered schist, now in the jasperoid rock, and at the after end is encased in a more or less rounded mass of resin which serves as a handle. The entire length of the weapon is $7\frac{1}{2}$ in., that of the blade $4\frac{1}{2}$ in. It is three-edged, one face practically flat and unworked, the other angular and divided by a rather eccentric ridge. The smaller of the two faces thus produced is again separated into two parts by a somewhat oblique subsidiary ridge passing to the cutting edge. The cutting edge is somewhat irregular in outline, but excellently well kept in the one plane, terminating forwards in a slightly jagged point, and very sharp. The surface is perfectly smooth. The blade at its insertion in the resin is all but 2 in. in width. The section is widely triangular, with the apex of the triangle somewhat eccentric." Mr. Etheridge in his admirable paper further describes a second knife made out of scrap iron, and obtained by Mr. Sweet of Brunswick, Melbourne, from near Cooktown, in Northern Queensland. This knife is the shorter of the two, and the handle is formed by wrapping the blade round with a piece of turkey red cotton, kept in its place by a loose winding of string and thread; it is $6\frac{1}{2}$ in. long. A third knife, although

shorter in the exposed blade, is longer in its entirety, being 7½ in., but not so broad as the second knife. Here the handle is formed by a wrapping of some fabric, and then apparently cemented with a native gum, which has set hard, producing a compact and solid handle; and protruding from the base is a mass of green sheeps' wool, somewhat like Lumholtz's illustration in his work "Among Cannibals," page 48.

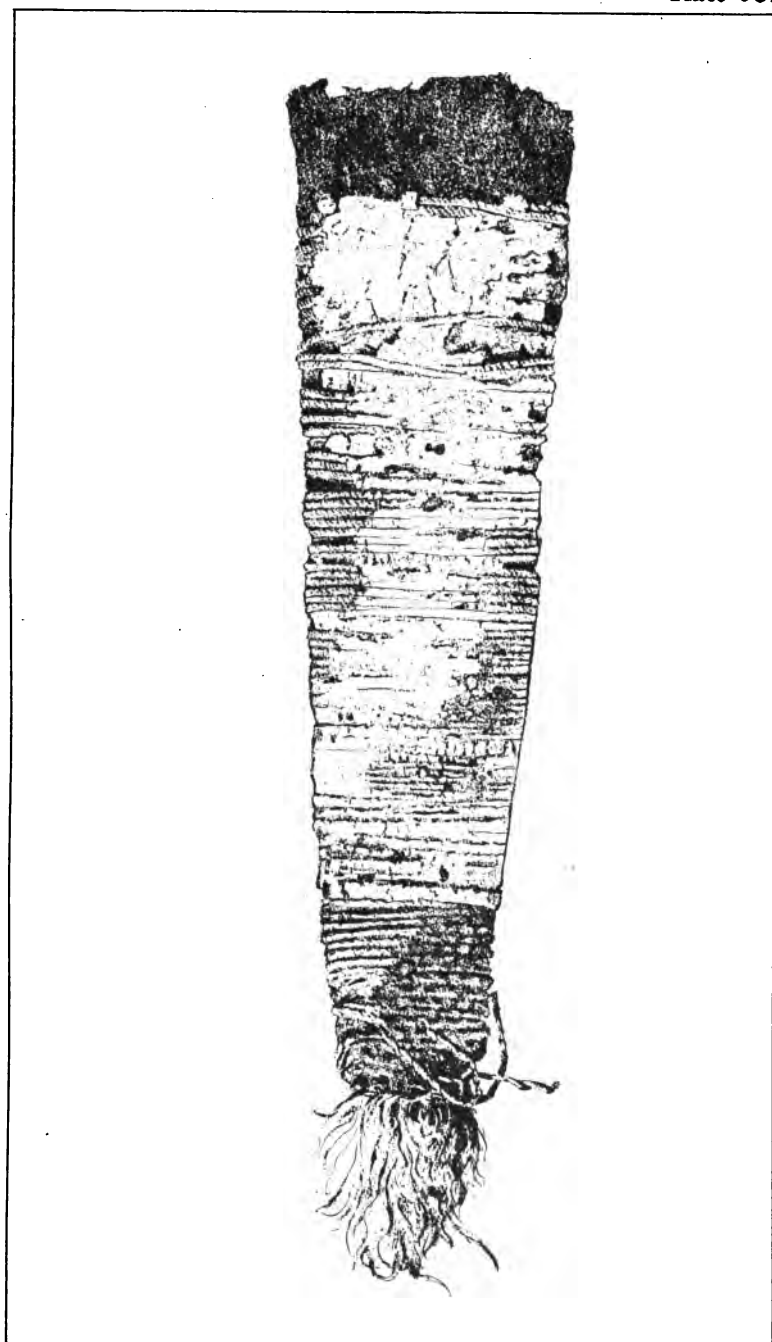
Plate 55 represents the sheath in which the native knife is carried. It is made of two pieces of tea-tree bark, placed together, and kept in apposition by a binding string spun from opossum hair. The surface of the sheath is whitened with chalk, and terminates at the smaller end in a tuft of cockatoo down.

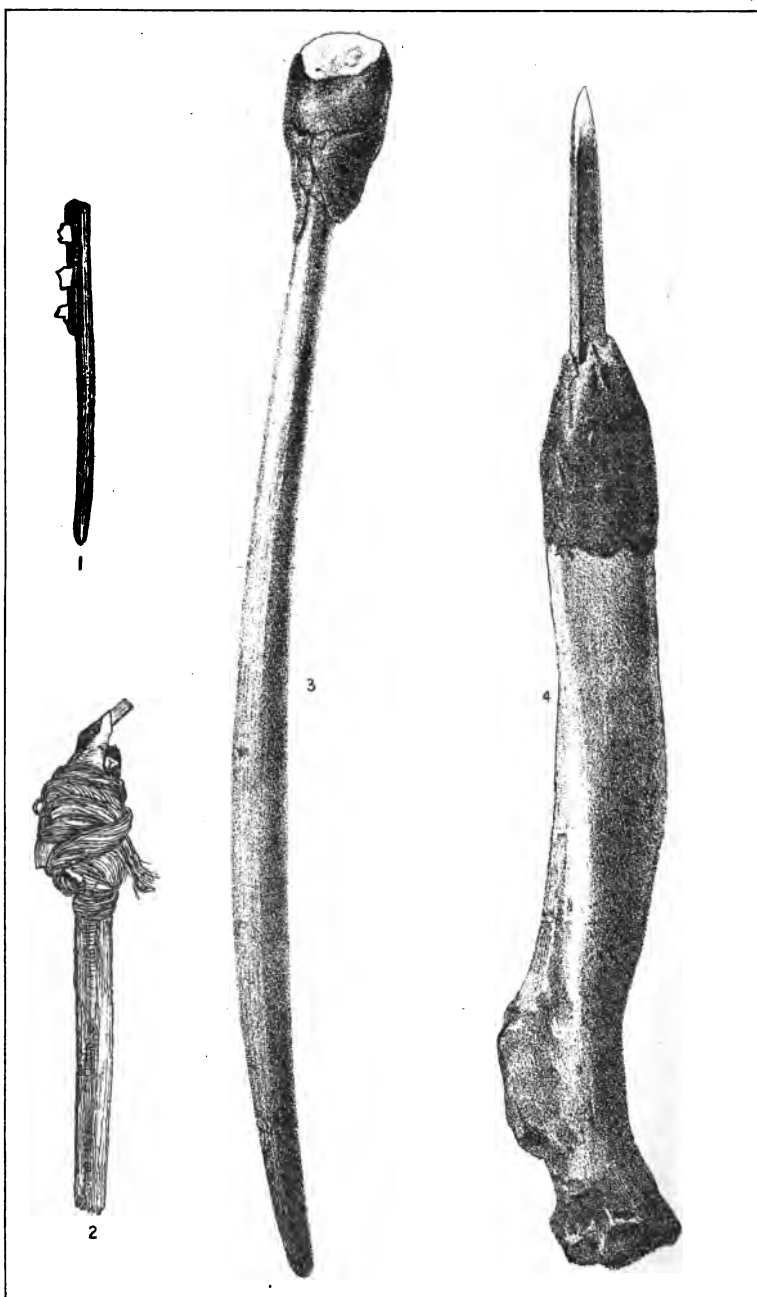
In another paper read by Mr. Etheridge before the Linnean Society of New South Wales he says:—"At the last meeting I described a stone knife from the Mulligan river. Since then my colleague, Mr. J. Brazier, has recalled to my notice a very complete set of these knives in the Australian Museum from North Queensland. The chief points of interest about these knives lie in their close resemblance to the figure given by Lumholtz. This resemblance consists in the presence of bark sheaths, a wooden handle to one and an apical ornament of birds' feathers to another.

"The knives are five in number, the stone heads being all of the same type, angular in the middle line of one face or sometimes faceted flat on the other, and composed of a dense fine altered siliceous rock. In one instance the angular ridge is replaced by a long central facet; but in the other four the angularity is strongly marked, whilst considerable difference also exists in the proportions of the knives. One is very short and rather thick, 1½ in. in breadth by 2 in. long; but the two largest are respectively 1½ in. and 1½ in. in breadth by 3½ in. and 3½ in. in length. A fourth is lanceolate, 1½ in. broad, by 3½ in. in length. The fifth knife departs from the general type of the others to some extent, in that it is more truly scalpriform, thicker along the back than at the cutting edge, and the surface gradually sloping off from the former to the latter without being angular.

"The whole of the knives are mounted in black gum, in four instances coated with red pigment. In three instances the gum hafting is gradually rounded off at the base to an obtuse point, and clearly was never continued by a wooden handle. In the fourth the mounting is broken short off against the posterior margin of the knife, but the fifth possesses a wooden extension to the gum base."

"The bark sheaths all appear to be made of the inner layers of the stringybark, two pieces laid together, as described by Lumholtz,





in each case bound loosely with a string. In three cases the string is of native manufacture, composed of a kind of flax, but in the fourth some manufactured string has been used with it. Three of the sheaths are very roughly made, but the fourth and longest, 6½ in., is very neatly put together and tightly and regularly bound round with string, the interspaces between the successive coils being filled in with a white clay or pigment. It is the apex of this sheath which bears the tuft of birds' feathers."

At the same meeting Mr. Etheridge exhibited an interesting weapon from Swan Bay, Port Stephens, forwarded to him by Mr. Crummer. He remarked that he had never seen an aboriginal stone implement figured like it, but in a grave examined by Professor David and himself they found an implement of a somewhat similar nature, and, like it, made of a hard sandy shale.

"The general form of this weapon is that of an elongated parallelogram, the longer sides being parallel and one end ground to a cutting edge on both faces. It is 9½ in. long, 2½ in. wide, only ¾ in. in thickness, and its weight is 8 ozs. If its conjectured use as a tomahawk be correct, it was probably held directly in the hand without the intervention of a handle, although it must be confessed there is no trace of hollows for affording a grasp of the weapon such as are seen on those axes known to have been used in this way; or it may have been used for skinning, as its obvious weakness would ill fit it for the heavy work to which the blacks put their tomahawks. Of whatever use these implements may have been, there can be no doubt of their wide deviation from the generality of stone axes met with in Australia."

The meat cutter or native knife (Plate 56, Fig. 1) is made by fixing to a short hard piece of wood with the gum of the *Xanthorrhoea*, fragments of quartz. It looks like a saw, but is really a knife used by the natives to cut or jag flesh.*

A peculiar and interesting native implement is deposited in the Warrnambool Museum, Victoria. It is a carrot-shaped implement formed of the local soft, gritty, white limestone found in loam about 2 ft. below the surface of the ground, on the site of an old aboriginal camp in Darling-street, Warrnambool. My friend Mr. R. E. Johns, to whom I am indebted for the particulars respecting it, informs me that it bears no scratched pattern, and measures 16 in. in length, 3½ in. in diameter at the base, by 5½ in. at the top.

Native knife (Plate 56, Fig. 2), called Leange-Walert.

The lower jaw of the opossum is firmly attached to a piece of wood which serves as a handle; with this tool the black carves patterns in the hard tough wood of his weapons. The front tooth

* B. Smyth, Vol. I., p. 341.

is like a gouge or chisel with which he scoops out the wood with great facility.*

The native gouge or chisel (Fig. 3) is formed of a fragment of quartzite, firmly set into the end of a rough handle of wood, and secured in its place by gum. Mr. Etheridge, in describing this implement, says—"It is proportionately slender, better finished, and altogether a handier instrument than that described in Smyth's 'Aborigines of Victoria.'" A similar one in form, but much larger, is in the possession of Sir Edwin T. Smith, K.C.M.G., of Adelaide, sent to him from the Finke river. Mr. Howitt, in his account of the natives of Cooper's Creek, says:—"These gouges are used by the native sitting down on the ground, holding the piece of wood between his feet, and then adzing it with the tool held towards him."

The implement shown in Fig. 4, although not made of stone, is yet a very interesting object. Mr. Etheridge, jun., describes it as an awl formed of a cast-iron four-sided nail inserted in the proximal half of a human left radius, and secured therein by gum, and was found at Kimberley, Western Australia.

SPEAR-HEADS.

To R. Etheridge, jun., Esq., I am indebted for the following representations of spear-heads now in the Australian Museum, together with the remarks respecting them. They were obtained from Settlement Creek and the Nicholson river. The two larger have the gum used in mounting still adhering to their bases. The section is triangular, flat, or partially concave on one face, acutely angular and sharp in the middle line on the other, and tapering to a moderately acute apex. These illustrations are seen in Plate 57, and are as follow:—

Fig. 1.—Spear-head, dark felsite—Queensland ($6\frac{1}{2}$ in).

Fig. 2.—Spear-head in process of formation—Kimberley, W.A.

Fig. 3.—Spear-head of granular quartzite—Queensland ($6\frac{1}{2}$ in).

Fig. 4.—Spear-head of white quartz, edges serrated—Kimberley, W.A.

Fig. 5.—Spear-head of white opaque milky quartz, edges unserrated—Kimberley, W.A.

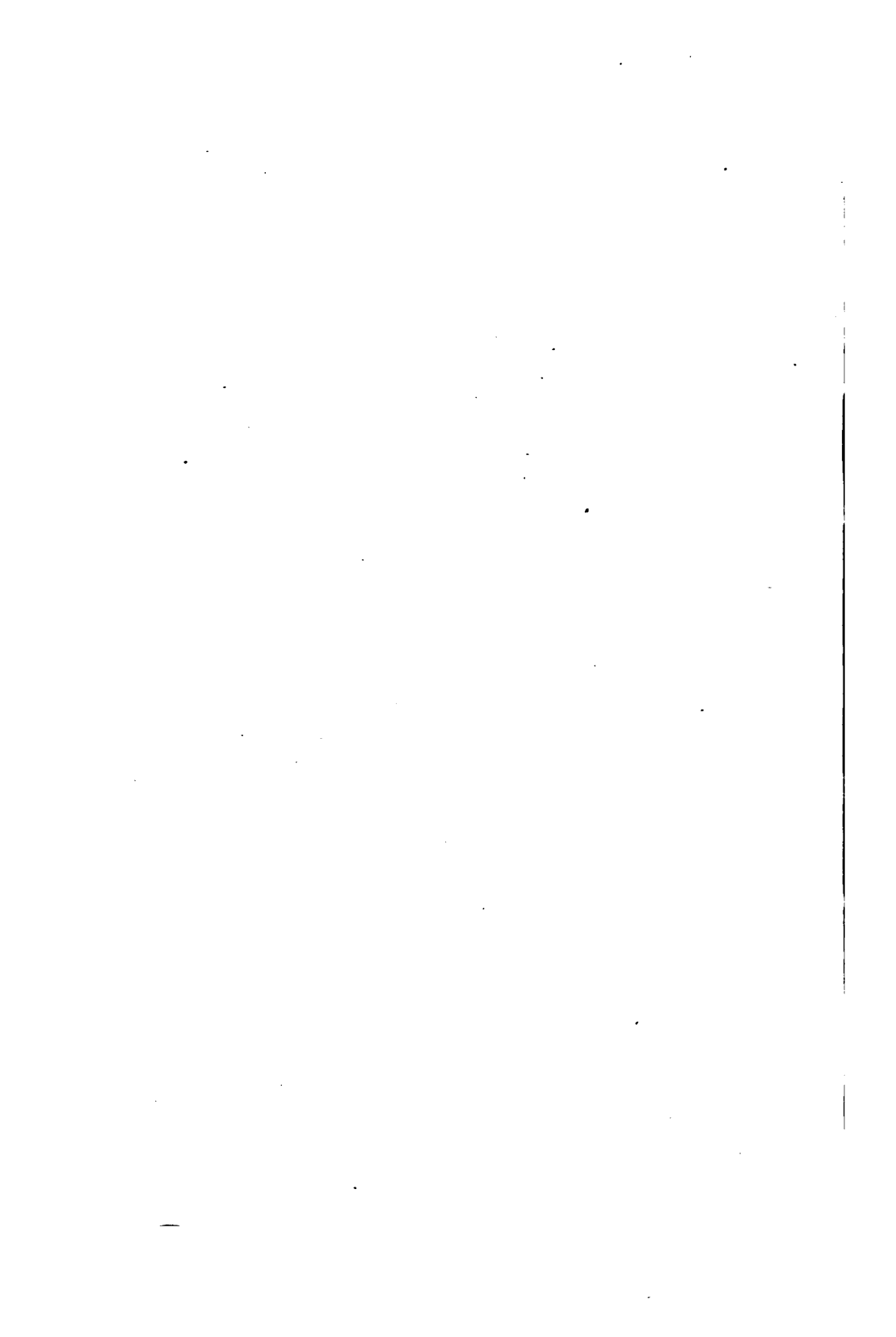
Fig. 6.—Spear-head with sharp apex—Kimberley, W.A.

SNARING BIRDS AND ANIMALS.

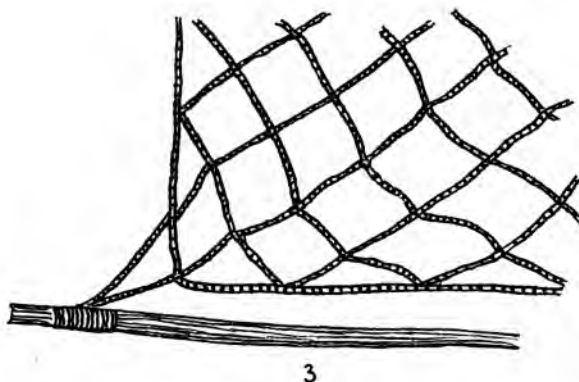
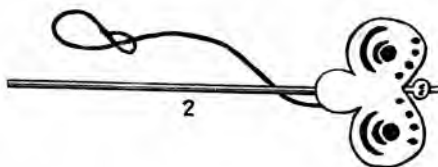
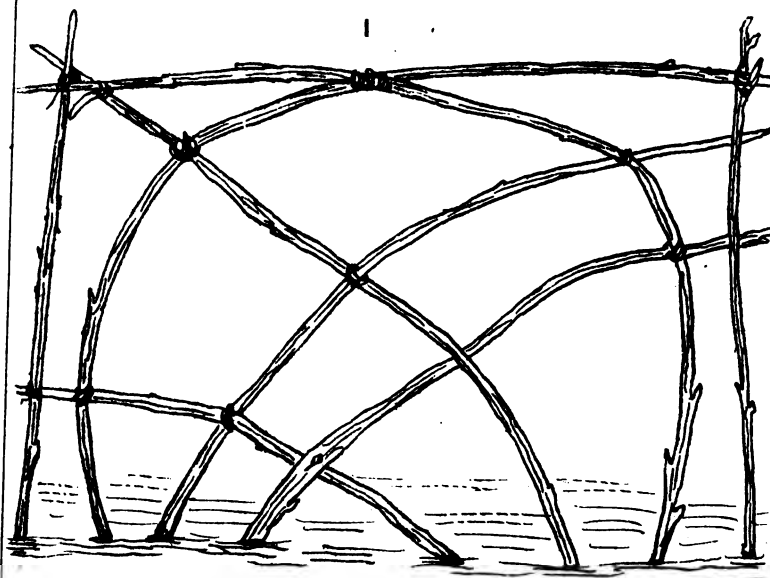
On the swamps and reedy banks of the Lower Murray, and on the lakes and south-east coast, snares are erected for catching

* B. Smyth, Vol. I., p. 349.









small birds. This is the work of the young men and boys. They lie hidden beneath a tuft of reeds, or within an artificial cover close by, and, by imitating the notes of the various birds as they come to the water to drink, allure them towards the snare. After drinking, the birds alight on the framework, and are secured with the snaring rod, and drawn into the place of ambush. (Plate 58, Fig. 1.)

Wild fowl were caught by means of a long thin stick or reed with a noose at the end. The native would hide under a tuft of rushes or reeds, and silently wait for the approach of the birds with the wand in his hand, which had to their sight all the appearance of a common reed; when the birds came near enough it would be slipped over their unsuspecting heads, and dragged into the hands of the captor. (Plate 58, Fig. 2.)

In the Western Districts of Victoria, and also in the northern parts of South Australia, they make a long and flexible instrument like a rod or wand before mentioned, and attach to the end of the thinner part the skin and feathers of a small bird, or a large dead butterfly, and a running noose as shown above. When the hunter sees a turkey, he slowly approaches the bird, holding in front a bush to hide his body, and swinging aloft the decoy with a peculiar motion characteristic of the bird or insect. The turkey's attention is at once arrested, and wholly taken up with the movements of the decoy. It stands and stares stupidly at the thing, turns round, stares again, and, though the decoy approaches, moves away but a little. Thus the bird continues to stare until the black gets near enough to slip the noose over his head and secure his prize. The favorite mode of cooking this bird is in the native oven.

Brough Smyth also says:—"When I was travelling over the plains of the Western District on one occasion I had an opportunity of putting to the test this strange habit of the wild turkey. We saw several with their young feeding on a wide open grassy plain; and selecting one old bird for experiment, we drove round him in our carriage gradually decreasing the distance, the bird turning round and staring stupidly all the while at the vehicle, until the driver was almost within reach of him with his whip. We could have secured him if we had had a noose." It may be, however, that the presence of the young progeny, and the need of their protection, would account in some measure for the daze of the parent bird; and that the above description may be exceptional in this our day when the wild turkey is so hunted, tending rather to a wary nervous sensitiveness at the approach of an enemy than otherwise.

On the Goulbourn river, Mr. Chenery says, "a man swims under water, breathing through a reed, and approaches a flock

of ducks without creating any alarm. When he is within reach of a duck he seizes it by the feet, drags it under water, wrings its neck, tucks it under his belt, and in this way quietly and noiselessly secures a large number of birds." Another black will enter the water (far below a flock of waterfowl), covering his head with a bunch of flags or rushes, or indeed any weed that is growing in the water. He then swims very quietly towards the flock, and when within a short distance he slowly and cautiously approaches them by an almost imperceptible movement. The flocks are not disturbed by the bush nearing them; the native cautiously pulls one bird after another under water, kills them in a similar manner, until his belt will hold no more, when he as quietly and noiselessly removes himself away.

The natives seldom stop to pluck the birds of their feathers before cooking, but placing damp grass on the hot stones of the oven, put the bird thereon, and laying on more wet grass and placing heated stones on it, cover up the whole with earth. In this way they are half stewed.

In rivers where there are neither reeds nor trees the natives fix stakes in the water for resting-places for shags, cormorants, and other birds, and when they perch on these the natives would swim quietly up to them (their heads covered with grass), and seize them.

Small birds, which feed on the blossoms of the native honeysuckle, are snared in the mallee scrub in the following manner:—A hole is dug in the ground sufficiently large to admit of a man sitting in it comfortably, and over it a mia-mia or wurley is built of green boughs or twigs, whilst in front small sticks are stuck in the ground in a slanting direction. The native, with his thin stick furnished with a running noose, then takes his seat in the hole and imitates the chirping of birds. When he secures one he uses it as a decoy, fastening it by a cord to one of the long slanting sticks, when it attracts large numbers by its cries and the native cautiously ensnares one after another with his loop. Many birds are taken in this way by a patient hunter.

TRENCHES. PITFALLS. FENCES.

About thirty-five miles from the Sound, a little to the westward of the road to Swan river, Captain Stokes' party crossed several short trenches for the purpose of catching kangaroos, which were numerous. They were cut by the natives across the runs of the animals, and were covered with slight layers of brush or grass, being made narrow at the bottom, so that the kangaroos could not obtain a footing to bound out.

Mr. W. C. Gosse, in his account of his explorations, speaks several times of finding low brush fences, built by the natives, one in particular at the Musgrave Ranges, lat. $26^{\circ} 16' 12''$ S., which the natives used for catching wallaby.

In lat. 30° S., long. 122° E., are native wallaby traps. They are long lines of sticks, boughs, bushes, &c., which, when laid down, are about a foot high and about a quarter of a mile long, and in the form of two sides of a square, forming a corner. At this corner, for a few yards, the fences are about 4ft. or 5ft. high, made more substantial and laid with boughs. Over this point is thrown a net, or if a net is not obtainable it is covered with boughs. The natives hunt the wallaby by spreading themselves out, and by beating the bushes and making a great noise, when the animals are frightened into the lines, and then hop along until they reach the covered portion, where a native is hidden behind some bushes. As the wallaby reaches his den he is quietly knocked on the head by a waddy.

On the Natal Downs, near the Cape river, a curious implement is made called the emu call. It is a hollow piece of wood about 2ft. long and 3in. in diameter, partially closed with gum or wax at the small end. By blowing through this a peculiar sound is produced, sufficiently like the emu's cry to attract the bird at night within spear range or inside kangaroo nets which have been purposely set.* In hunting the wallaby on the Herbert river and in other parts of Australia the natives use long nets with large meshes, placing them in line between posts to which they are fastened. (Plate 58, Fig. 3.)

Wallabies are endowed with an acute sense of hearing, so that the natives when hunting them use the greatest care in moving along until they come close to their known haunts, when they make a great noise, frightening the timid animals into their nets, where they fall an easy prey to the hunters. Kangaroos are also entrapped in nets, but of a much larger description.

Mr. Hawdon, in his journal, says that at Swan Hill (in 1838) he obtained from the natives there two curious nets, very neatly made of twine, manufactured from the native flax (which grows in small quantities near the river, with which the natives caught both wild fowl and kangaroos. He also describes the modes of spearing the emu, which is the same method as that practised on the Comet river in Queensland. The native climbs a tree beneath which he knows this bird is in the habit of coming, and when the prey is immediately below him he pierces it with a spear about 12ft. long, specially made for this purpose.

* The Australian Race : Curr.

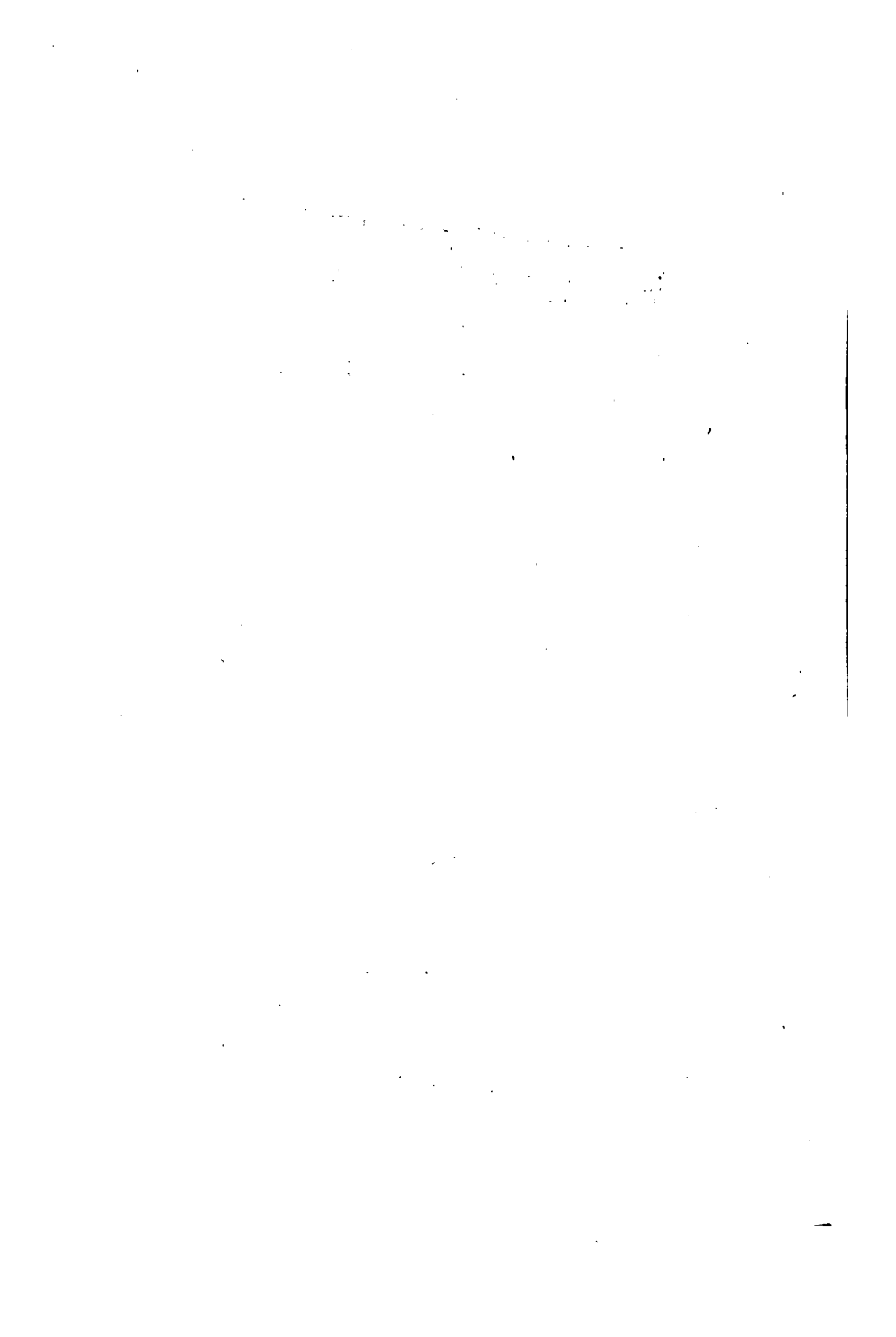
CHAPTER IX.

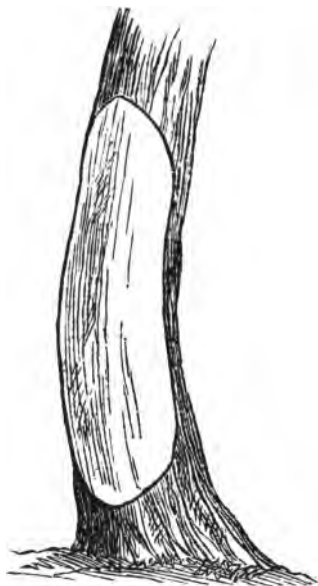
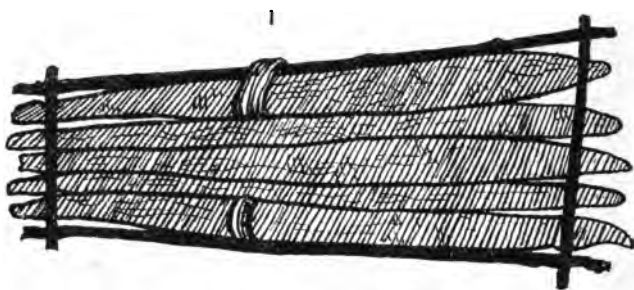
NAVIGATION, RAFTS, CANOES, ETC.

The rudest kinds of boats and other means of crossing streams of water or the narrow channels of the sea from the mainland to the adjacent islands are in use amongst the Australian natives. When Captain King was surveying between Enderby and Rosemary Islands he caught sight of three natives who appeared to be wading through the water, but on approaching them it was discovered that they were each seated on a log of wood, which they propelled through the water by paddling with their hands and feet. At Lewis Island he found the only means of transport was of a similar character. One of these logs he managed to secure, which was found to be the stem of a mangrove tree, but as it was very short the ingenuity of the natives had joined two logs very neatly and curiously together end to end, and so formed one piece sufficient to carry two persons. The end was rudely ornamented, and the joint was made by driving three pegs into the end of one log, and so bending them that they were made to enter corresponding holes in the other at the place of junction. In this kind of raft the natives sat astride and moved it along by paddling with their hands and feet.

Near Bathurst Island Captain Stokes discovered in the bay a native raft in such a position as must have required the exertions of several men to have placed it there, being heavier than either one of their boats. In the construction of this raft almost everything had been left to nature. It was formed of the dead trunk of a mangrove tree, with three distinct stems grown from one root, and was about 18ft. long and 4½ft. broad. The roots were closely entwined, as is the habit of this tree, and formed a sufficient bulwark at the stem, while an elbow in the centre of the trunk served the same purpose at the stern. A framework of small poles well covered with dried grass gave sufficient flooring for the platform.

At King's Sound a similar raft was found, except that between each pole several small pieces of wood were inserted so as to make the flooring almost smooth. Into the larger end of the centre pole six long pegs were driven, forming a basket, in which were means for procuring fire; these consisted of two pieces of white flint and some tinder made from the inner bark of the papyrus tree.





In Sunday Straits Captain Stokes found a raft of nine small poles pegged together. The length was 10ft. and the breadth 4ft. The greatest diameter of the largest pole was 3in. All the poles were of the palm tree, a wood so light that one man could carry the whole affair with the greatest ease. Beside it was a very rude but double-bladed paddle.

The catamarans of Hanover Bay differed but slightly from the above. They consisted of five mangrove stems lashed together to a frame of smaller wood, and were buoyant enough to carry two natives, besides their spears and baskets. (Plate 59, Fig. 1.)

On the eastern point of Bentinck Island so numerous were the rafts used by the natives that they suggested the name of Raft Point to one portion of the island. There can be little doubt that the use of mangrove trunks in their construction at the places named before arises from the want of any other kinds of timber suitable for the purpose. Captain King so greatly admired the single log rafts, and the speed they attained in passing through the water, that he thought they should be called "the marine velocipede."

At Patterson Bay, lat. 12° S., long. 131° E., Captain Wickham saw a raft constructed of very small bundles of wood lashed together. On it were two women and several children, whilst four or five men were swimming alongside towing it and supporting themselves by means of a log of wood across the chest.

CANOES.

On the North-West Coast a canoe was obtained by Captain King under Point Ross, which had evidently been stolen by the natives, most probably from the Malays, as it was made from a log of teak. It was 17ft. long and 2ft. broad. In Knocker Bay the surveying party were attacked by the natives, and it was determined to punish them by taking away a canoe that was on the beach. It was nearly new, measuring 18ft. long by 2ft. in breadth, and would have easily carried eight persons. The canoe was made of one sheet of bark, the sides being supported by two poles, fastened to the gunwale by strips of a climbing plant. The ends were neatly and tastefully joined together, and in the bottom short pieces of wood were placed crossways in order to increase its shape and strength. This kind of canoe was not made without a great deal of labor and difficulty, as the cutting and fashioning implements were of the rudest kind.

At Port Macquarie the natives were thought to depend more upon their hunting than upon fishing for their living. This decision was formed by Captain King from the inferior make of

the canoes in use amongst them. These consisted merely of sheets of bark with the ends slightly gathered up to form a concavity, in which the natives stood and propelled them by means of poles. These canoes were not more than 8ft. long, and would not carry more than two people safely; the ends were stitched together by strips of the stem of the *Flagellaria indica*.

The management of the bark canoes is perhaps as remarkable a feat as tree-climbing in the native fashion. The slightest deviation from the equilibrium by either one or the other of those using them would upset the frail bark and throw them and all their goods into the water.

Captain Sturt, in 1844, when on his way to the interior, camped on the banks of the River Darling prior to making his final dash into the then unknown continent. On the opposite side of the river was an encampment of natives. One man with his lubra and two children crossed to the western bank early in the morning, and the attention of Captain Sturt was directed to him by his perseverance in cutting a bark canoe, at which he labored for more than an hour without success. Mr. Browne accompanied Captain Sturt to the tree at which the native was working, when they found that his only tool was a stone tomahawk, and that with such an implement he would hardly finish his work before dark. An iron tomahawk was then given to him, when he soon had the bark cut and detached from the tree. He then prepared it for launching by puddling up the ends with clay. Putting it into the water, placing his lubra with her infant child in it, and giving her a rude spear as a paddle, he pushed it away from the bank. She was immediately followed by the other little urchin who was sitting on the bank; but he evidently doubted his own ability to gain the opposite side of the river, and it was most interesting, observed Captain Sturt, to mark the anxiety of both parents as the little fellow struck across the foaming current. The mother in her canoe kept close beside him, and the father stood on the bank encouraging his little son.

On the North-West Coast Captain Stokes saw a very pretty bark canoe, 15ft. long and about 2ft. deep, the ends being neatly sewn together. "The workmanship," he says, "is the most artistic I have seen amongst the aborigines of Australia."

Canoes are not found amongst the natives westwards of Clarence Straits, and only rafts are in use on the coast southwards to Cape Leeuwin. From the parts of the coast on which canoes are used an inference may therefore be drawn that the migrations of the natives southwards have been along the east coast. The rafts are precisely the same in make and size on the whole extent of the

North-West Coast, starting from the bottom of the Gulf of Carpentaria.

In constructing a bark canoe a suitable tree, generally a large redgum, is selected, and always one that was bent, or that had an outward bulge on one side. On that side the bark is marked out or cut by painted dots, or by notches in the shape of an elongated ellipse, approximating as nearly as possible to the shape of the canoe itself, after which by pressing the wooden handle of a tomahawk and a pole between the bark and the wood the sheet is carefully removed. The outside roughnesses of the bark then are pared off, leaving the thin, hard, and woody inside shell, and the sheet is placed over a fire of red hot ashes to cause the ends and sides to be gathered up and brought together,* as seen in Fig. 2, Plate 59.

These canoes are of very light draught. With one or even two blackfellows, the draught is seldom above 3in. or 4in. Some that I have seen on the River Murray will carry a considerable load; but, being quite round on the bottom and without any keel, they overturn with the greatest ease imaginable.

On the North-East Coast, where the natives have been brought into constant intercourse with the Malays and others from the neighboring islands, the natives have imitated, to a limited extent, the method of boat building, with outriggers attached, so commonly in use in the Malay Archipelago.

Captain King, near the Bloomfield Rivulet, discovered a canoe hollowed out of a tree; it was 21ft. long; the greatest breadth was 15in. in the bilge, whilst at the gunwale the opening was only from 6in. to 8in. wide, an outrigger being neatly attached to one side projecting about 2ft. At each end was a projection about 20in. long, on which the natives either sat or carried their fire, and inside were two paddles and a long pole.

The canoes in use here were in many cases hollowed out either by fire or by some blunt implement from the trunk of the *Erythrina indica* (the coral tree), and were capable of carrying seven to eight persons.

Mr. A. C. Gregory, whilst anchored at Port Albany, a narrow deep channel between Albany Island and Cape York on the main land, had a visit from some of the natives in a canoe formed of a single tree hollowed out, and fitted with outriggers; and Mr. F. Gregory was also visited by two natives, when he was in the *Dolphin*, in Mermaid Straits, who had paddled off on logs of wood shaped like canoes, though not hollowed out. They were, however, very buoyant, about 7ft. long and 1ft. thick, and propelled with the

* Brough Smyth's Aborigines, Vol. I., p. 411.

hands only, their feet resting on a little rail made of small sticks driven into the logs on both sides.

Bark canoes were used by the coast natives of New South Wales; they were from 6ft. to 10ft. long, and 2ft. wide. A sheet of bark of the desired length and breadth was stripped from a straight stem and the two ends scraped until they tapered to a very thin edge. These thin ends were then raised by being creased into ridges, and gradually pressed close together. A peg was then driven through the folds at each end, and the bark twisted round to keep the sheet from slipping back. The sides were kept apart by sticks sharpened at each end and placed across the canoe, and it was ready for use. It was propelled by sticks used like paddles, or by small sheets of bark held in the hand; the largest of these canoes would carry five or six natives safely across the strait, about two miles wide, which separated Montagu Island from the main land. Fire was carried on a clay hearth in the bottom of the canoe.

Earl, in his "Enterprise in Tropical Australia," says:—"On the Cobourg Peninsula, near Port Essington, the natives have canoes made from trees 12ft. in circumference and from 50ft. to 60ft. long." And, again, when on the voyage from Sydney to Port Essington, he relates that when near Cape Direction, on the Queensland coast, "four natives paddled towards the ship from the main land in a canoe that was provided with an outrigger like those of the South Sea islanders."

Admiral Keppel, in his Indian Archipelago, mentions in Vol I., p. 168, that "the Dyaks of Borneo have boats made from the bark of a tree freshly sewn together with strips from the ratan, and stiffened with pieces of bamboo."

CHAPTER X.

OFFENSIVE WEAPONS.

To practically describe the various weapons of the aborigines is more than can possibly be undertaken by one individual, because of their great number and variety; and as some of these have gone out of use since the colonisation by Englishmen it will not be necessary to enter more minutely into them than in this brief reference. All the tribes differ somewhat in their manufacture of weapons, especially those of an offensive description; yet there is a family likeness in them all, except in one or two isolated tribes residing on the shores of Cape York, who by their intercourse with visitors from the Malayan Archipelago have learnt the use of the bow and arrow. In no other portion of Australia are these in use; but the spear, the shield, the boomerang, the wooden sword, the waddy, and even the dagger are widely and well known.

In the annual report of "The Board of the Smithsonian Institution (Washington, U.S.A.), for the year 1879," on page 289, is a description of a bow and arrow in use along the eastern shore of the Gulf of Carpentaria and the northern points of Queensland, which I here annex.

"The bow and arrow of Queensland, Australia, are shown in Fig. 139. The bow is 6ft., long and made of the male bamboo, which is solid. The string is a strip of ratan, which is beaten to remove the flinty coating reducing it to a bunch of fibres, which is slightly twisted. The arrow is of reed, from 3ft. to 5ft. long, and has no niche for the string nor feathers for the butt. The arrow-head is of hard wood, smooth, knobbed, or barbed. As the bows are used only in the northern part of Australia it may reasonably be supposed that they are of foreign origin and the knowledge of them imported from Papua."

SPEARS.

The principal weapon is the spear, of which there are many sorts and patterns. Those made expressly for war are generally 8ft. or 9ft. long, cut out of the solid wood, and may be barbed or not as the circumstances of its manufacture may permit. There are, however, many forms of barbs and many materials out of which they may be and are made. Some barbs are parts of the spear,

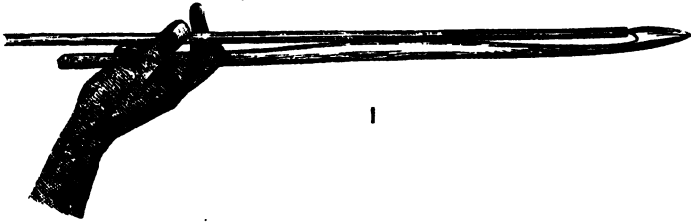
being cut out of the wood from which it is made; in other cases bits of quartz or flint are attached to the spear-head either by gum or the sinews of the kangaroo or some other animal for a space of about a foot or 18in., whilst others have heads of flint serrated in a most ingenious and surprising manner. Some spears are so heavy that they cannot possibly be thrown with the wommerah; they are then used as lances. For the chase lighter ones are made; sometimes simply a strong, sharp-pointed reed, or the peduncle of the grasstree. Others, again, are made both of a reed and wood, the point of wood being exceedingly sharp, whilst the shaft is made of reed, grasstree, or bamboo. This latter class seldom have their heads barbed, but the wood is as a rule plain and smooth, but heavy. Although these spears are specially manufactured for the chase yet they are on occasions also used in war.

The manner in which the spear is thrown by the wommerah is shown in Plate 60, Fig. 1.

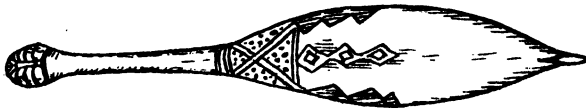
This instrument, which gives immense leverage to the spear when thrown, is made of different kinds of wood, and varies in length from 20in. to 36in. The most common one is about 26in. In placing the spear on the wommerah ready for throwing, the end is pressed firmly against its extreme end, which has a small projection made out of the tooth of a kangaroo, a piece of bone, or a piece of hard wood, pointed to fit into a corresponding hollow at the butt-end of the spear. Grasping the wommerah between the first and second fingers of the right hand, and keeping the shaft of the spear between the thumb and fore finger, as seen in illustration, he is ready for action against foe or game. There are many forms of the wommerah, according to the taste and ability of the maker.

The wommerah from the Darling river (Plate 60. Fig. 2) is embellished with rich carving, and shows ornamentation of much artistic value. It is in the Public Museum, Adelaide. The simplicity and perfect adaptation of the wommerah to the uses for which it is designed gives strength to one's belief in the natural genius of the aborigines. Poor indeed must be the native who has only a simple stick to use as a wommerah. In some the toothed end is originally fashioned out of the wood, but when this part becomes broken or worn away by use it is replaced with a kangaroo's tooth or a piece of emu bone, whichever is most conveniently handy. In using it the right hand is thrown backwards over the shoulder, enabling the man to throw the spear with much force and accuracy. The woods most commonly used for its manufacture are the native cherry tree and the blackwood.

Plate 60.



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A native in his wild state never moves from his camp without one or more spears in his hand, and his terror must be extreme when he drops them in his flight from danger. Sir Thomas Mitchell states that when he was near Mount Aripiles in western Victoria, he came upon a hut in which there were various articles, such as jagged spears, some of them set with flints. Mr. Stapylton (one of Sir Thomas Mitchell's party) disturbed some natives near a small lake close to Swan Hill, who fled, leaving behind them spears, skin cloaks, shields, &c. Captain King discovered a wrecked canoe in Mullet Bay, in which was a spear different, he says, from any he had seen before. It was headed with a sharp splinter of quartz, about 4in. long, which was fastened on by a ligature of plaited grass, covered by a mass of gum, and was a very formidable weapon.

Mr. Gregory, in speaking of native quarries, found one on or near the Victoria river, containing a white quartz-like rock, which the natives used for their spear-heads, and during a whole day's journey "great quantities of broken stones and imperfect spear-heads were noticed on the banks of the creek." Again, when crossing between the west and north coasts of the Gulf of Carpentaria, he saw some natives whose spears were formed of reeds with large heads of white sandstone, some of them having three wooden points for fishing.

Captain King, who landed in Hanover Bay, lat. 15° 18' 21" S., long. 124° 47' 5" E., was accompanied by Mr. Montgomery, surgeon to the expedition, when they were attacked by the natives, the surgeon being wounded in the back by a spear. After dispersing the natives, they seized two catamarans, or rafts, on which were bundles of spears, tied together with ligatures of bark, and on searching the grass near the shore they found water-baskets, tomahawks, spears, throwing sticks, fishing lines, and a spear headed with a stone curiously pointed and worked. Amongst the lot was a small bundle of bark tied up with great care. On opening this it was found to contain several spear-heads most ingeniously and curiously made of stone. They were each about 6in. in length, terminating in a very sharp point, both edges being serrated in a most surprising manner. The serratures were evidently made by a sharp stroke with some instrument, but without leaving the least mark of a blow. The stones were covered with a red pigment, and appeared to be a flinty shale. These spear-heads were ready for fixing, and the careful manner in which they were preserved plainly showed their value, for each was separated by strips of bark and the sharp edges protected by a covering of fur. Their hatchets were also made of the same kind of stone, the edges

of which were ground so sharp that a few blows served to chop off the branch of a tree. (Plate 61.)

On the Leichardt river Mr. A. C. Gregory met with nine blacks who appeared inclined to be hostile. They had neither ornaments nor clothing of any description, and were slightly scarred on the back and chest. Their spears were large and heavy, made of a single piece of wood; they had also smaller ones of reed with wooden points, besides clubs $2\frac{1}{2}$ ft. long and $2\frac{1}{2}$ in. in diameter, and shields formed of a single piece of wood 2 ft. long and 3 in. wide.

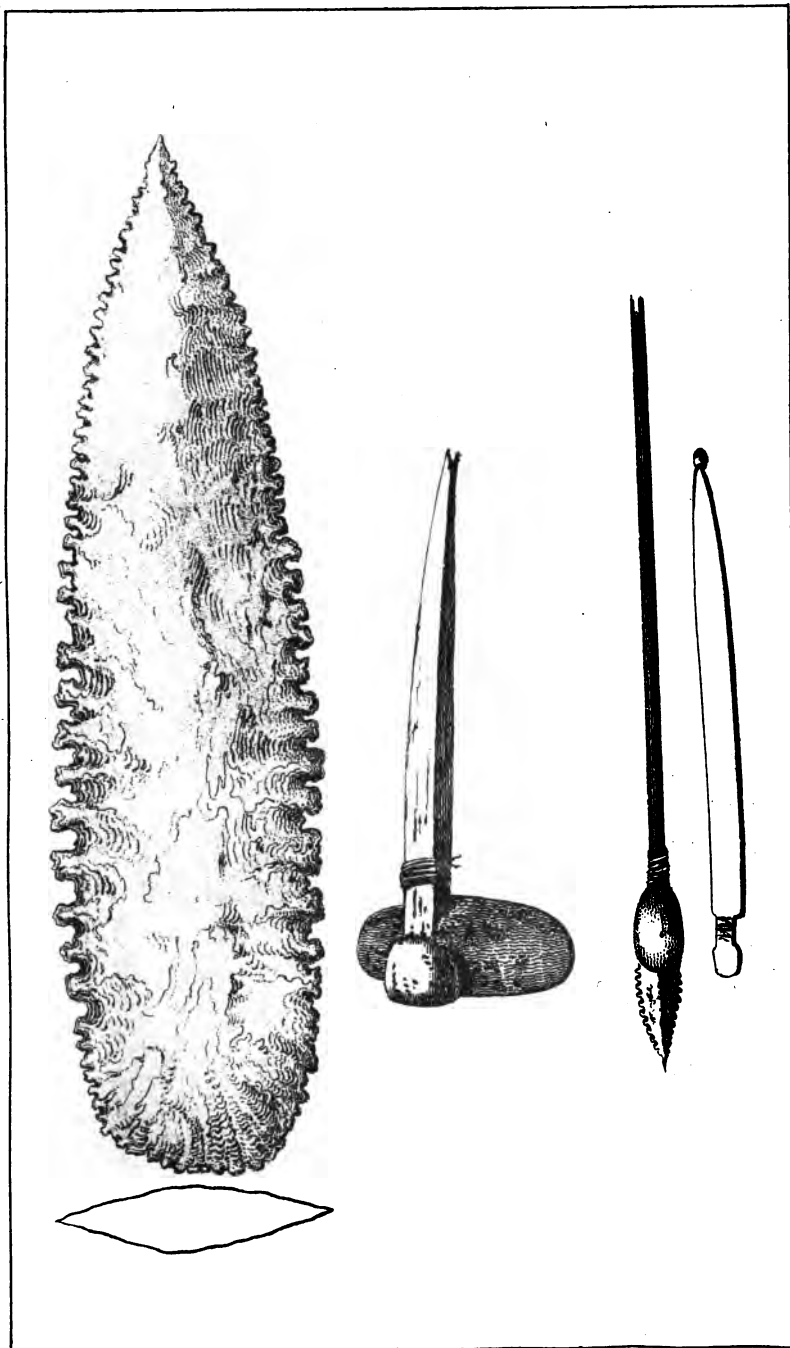
Mr. E. Giles relates that when in Glen Edith "he saw two natives who were looking most intently at his horse tracks. The natives neither saw nor heard him or his party until they were close upon their heels. Each carried two enormously long spears two-thirds wood and one-third reed; together with an implement—a wommerah—having a kangaroo or wild dog tooth fixed at one end. They also had small narrow shields."

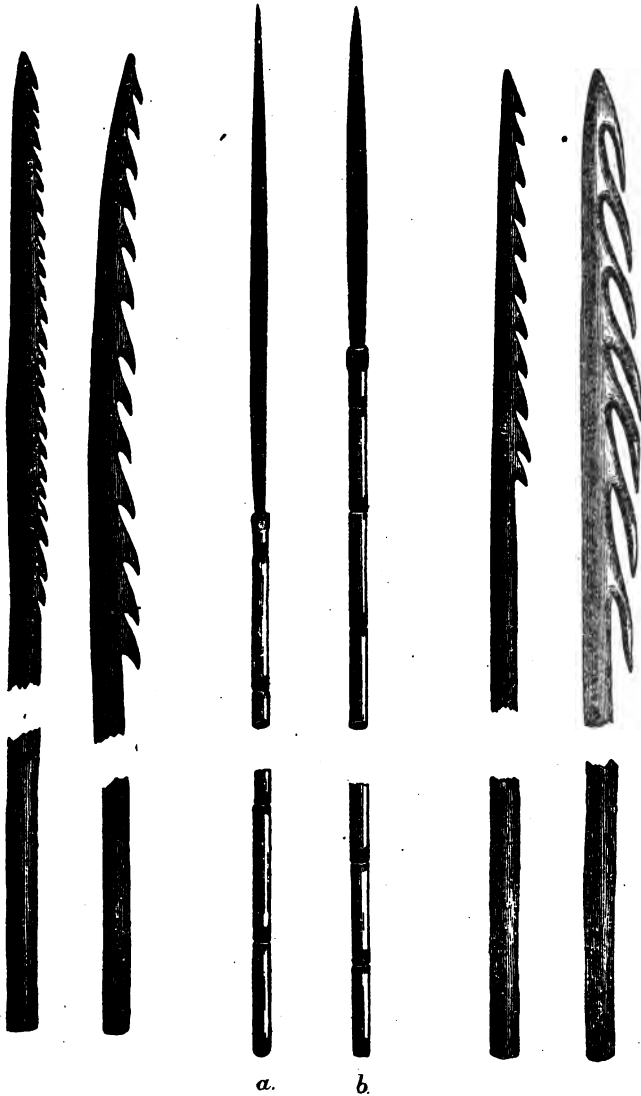
Mr. Winnecke, on his expedition from the Alice Springs to the Herbert river, on one night (camp No. 33) came near an abandoned native camp, where he saw an unusual number of spears, boomerangs, large clubs, iron and stone tomahawks scattered about, and a weapon which he had never seen before, viz., a long dagger made of hardwood.

The spears in Plate 62 are used in war. Great skill and care are necessary so as to fashion the barbs neatly and to keep them in a sharp and perfect state for use. Carving these barbs is a tedious and difficult business, requiring extreme care on the part of the maker. These spears are used by the natives of Central Australia and those of the southern and eastern parts of the continent. The two weapons, *a* and *b*, are of reed, with hardwood points; the wooden point is fastened to the reed by the sinews of the tail of the kangaroo, and made perfectly secure by gum. Sometimes a bone is substituted for the piece of hardwood.

One form of the stone spear-head is depicted in Plate 63, Fig. 1. These are not polished or ground in any way, but are made by striking off chips, and the form of many of them is perfect. It is wonderful that such beautiful weapons can be produced by percussion only.* The length of this spear-head is usually about 3 in.; the shaft is about 9 ft., and almost always of reed or bamboo, the head being securely fixed to the shaft by twine and gum. They are frequently ornamented with longitudinal grooves in bands alternating with plain spaces, and colored with red, yellow, and white pigments—the white appearing in round dots on the other colors.

* The Aborigines of Victoria.





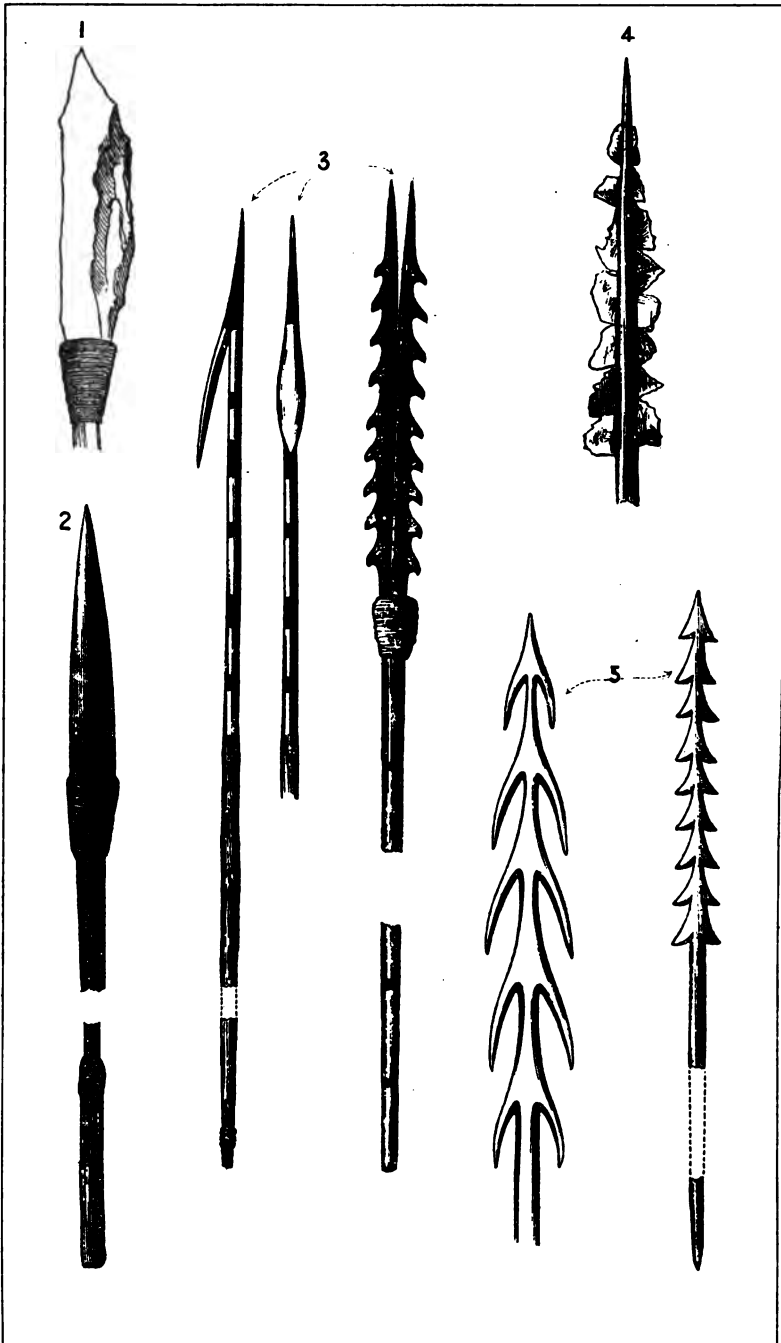


Fig. 2 represents a spear from the Far North; the head is made of greenstone (polished) and brought to a fine point, and is fixed to a long, well-shaped, hard wooden shaft by sinews and gum. This spear—differing so widely from all others of the aborigines—is the only one of such peculiar construction that is known or recorded.

The most common form of spear in use in Western Australia is the stone-headed one. The head is coated with hard gum, forming a kind of ridge on one side, in which pieces of flint, or quartz, or (since the advent of Europeans) glass, are firmly embedded. The cutting tools used in making these spears are shells, and quartz, or glass; the point is very sharp. They are 8ft. in length, and are thrown by the wommerah.

Mr. Brown, the Government Geologist of South Australia, brought from Western Australia a very remarkable spear from its ornamentation. The shaft, made of white wood, is scraped smooth from the point downwards along its whole length. It is then painted at regular spaces with a black line, so that a white and a black band alternate all along the shaft, each band occupying a space of 8in. or 9in. The spear is about 8ft. long, and the barb made of hard wood, very thin, but exceedingly sharp; and is firmly fixed to the head by the sinew of the kangaroo, and strengthened by a coat of the gum from the grasstree. It is thrown by the wommerah, and is a most dangerous and deadly weapon.

The double-barbed spear is also from Western and North Australia, and is to be found in use by the natives of the North, especially about Port Essington. It is not thrown by the wommerah, but is used as a lance, and is about 9ft. in length. The barbed head is attached to a wooden shaft in a manner similar to that of the barb described above. The points are very sharp, and it is a cruel weapon. It is a remarkable fact that the spears and shields of the Western Australian natives differ very much both in form and material from those of the tribes in any other part of the continent. (Fig. 3, Plate 63.)

The double-barbed spear in Plate 63, Fig. 4, is formed with flint, and should it strike a man fairly it would enter his body quite up to the lower barb, and could not be extracted without cutting open the wound entirely. It is made of a tough and hard wood, the head being grooved on each side, in which is inserted small chips of quartz, basalt, or greenstone, fastened in their places by a strong and tenacious gum obtained from an acacia. This kind of spear was in use on the Goulburn river and districts adjacent thereto.

Another form of the double-barbed spears is shown in Fig. 5. They are difficult to fashion and to keep in order, because of the barbs, which require extreme care in cutting out of the solid wood with the primitive tools of the natives, and are always liable to be broken; at one time they were much in favor with the men of all the tribes. The lower ends of these spears were also brought to sharp points, so that they could not be used with the wommerah, but were thrown by the hand alone, or used as a lance when in close quarters. The spears vary in length from 8ft. to 11ft., and the woods used in their manufacture were the messmate, the tea-tree, or other hard and rough timber.

In almost all the tribes large and small spears were in use, the larger either thrown by hand or used as lances, as circumstances required, the latter impelled by the wommerah. These spears were used on the Murray and in Western Australia. The tribes to the westward of Spencer's Gulf commonly use a spear to which they affix small barbs by means of the sinews of the kangaroo, which are formed of extremely hard wood, and inflict dangerous wounds, as their peculiar construction prevent their extraction from the body.

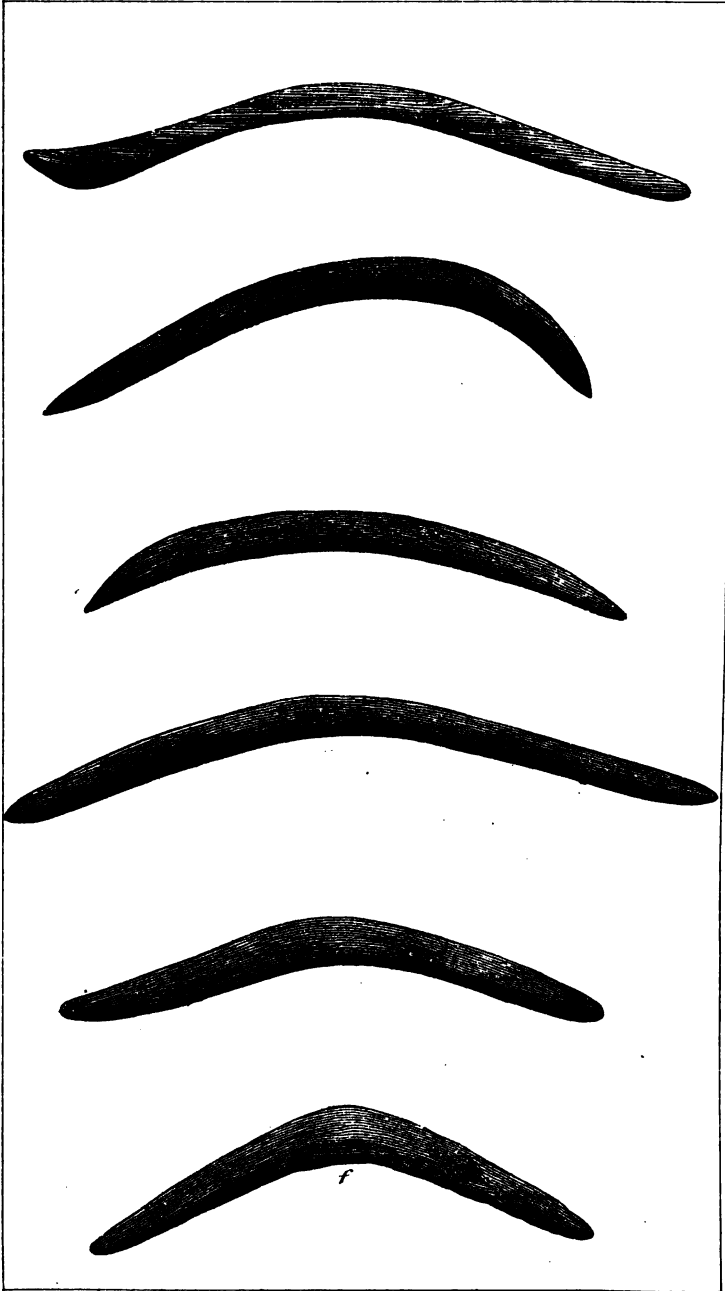
Before discharging the spear from the wommerah, or throwing-stick, it is the custom of the native to dance about quivering the spear until he works himself into a frenzy of rage. The spears are generally made of the tea-tree hardened by fire. Although of so formidable a character, their conflicts do not very often end in the loss of any lives.

KILEYS, OR BOOMERANGS.

The kiley, or boomerang, is in almost universal use in Australia, and is of equal importance to the native with the tomahawk or the spear.

There appears to be great misconception amongst some colonists and non-residents in Australia respecting the boomerang, which they have supposed to be a war implement only, and that in every instance when thrown it returns to the thrower. But this is not so with the war boomerang. That which does return is only used in games and for amusement. It has a variety of forms, as is shown in this work.

The throwing of this weapon is an art which few, if any, Europeans can attain to. In the hands of the natives, however, it is thrown with ease. It at once attains a rapid rotatory motion and ascends to a good height, occasionally taking opposite directions or forming a circle in the air, returning to the thrower, who has



SURVEYOR GENERAL'S OFFICE, ADELAIDE, A. VAUGHAN. *Photo Lithographic.*



to keep a watchful eye so that he is not struck by it, for should it do so it would either inflict a severe wound or, if it struck a vital part, would most certainly kill him. The distance to which it can be thrown is about 100yds. or 150yds.; and in returning it may strike the ground some 20yds. or 25yds. behind the thrower, skimming along the surface for some distance. Sometimes the boomerang is thrown at a point on the ground about 20ft. or 30ft. in front, which having struck, it ascends with the usual gyrating motion, returning again in the usual manner. In other cases if a boomerang, when thrown, is not at once arrested in its progress by coming in contact with the object thrown at, it will fly off at a tangent with undiminished force and with scarcely less speed. Some boomerangs do not possess the quality of rising in the air; it is only the lighter ones of a special make and with a particular curve which can be made to do so. This sort is used only in native games. Others, when thrown, roll along the ground wheel-like with great rapidity, and will strike down a large kangaroo or an emu.

The weight of these weapons varies from 4ozs. to 10½ozs.; the light ones are used in West and South Australia, sometimes in New South Wales, but rarely in Victoria. The woods commonly used for making them are the limbs or natural bend of the iron-bark, myall, and sheaoak; and they vary in size from 18in. to 3ft., or even more. In Victoria they are sometimes made of the bark of the gum trees; this is cut into the right shape, heated in the ashes of the camp fire, and twisted slightly. These boomerangs, however, are defective in flight and not so valuable as those made of hardwood. The best kind is cut with a primitive tool into the right shape; infinite patience is exercised by the maker, whose eye guides and directs every stroke until it is finished. Some of these are occasionally used in war, and are also employed in the chase and in killing birds. The natives skilful in making these instruments very rarely turn out two precisely alike. In the process of manufacture they are scraped, chipped, and smoothed as experimental testing suggests, and the weapon is not considered finally completed until the experiments are successful and it has come back in the manner desired by the maker. (Plate 64.)

When a skilful thrower takes up a boomerang intending to throw it he carefully examines it (even if it be his own manufacture), and, holding it in his hand by one end, he moves slowly from side to side, looking intently at the object he purposes striking with it, most carefully noticing the direction and force of the wind, as shown by the moving leaves of trees and the waving

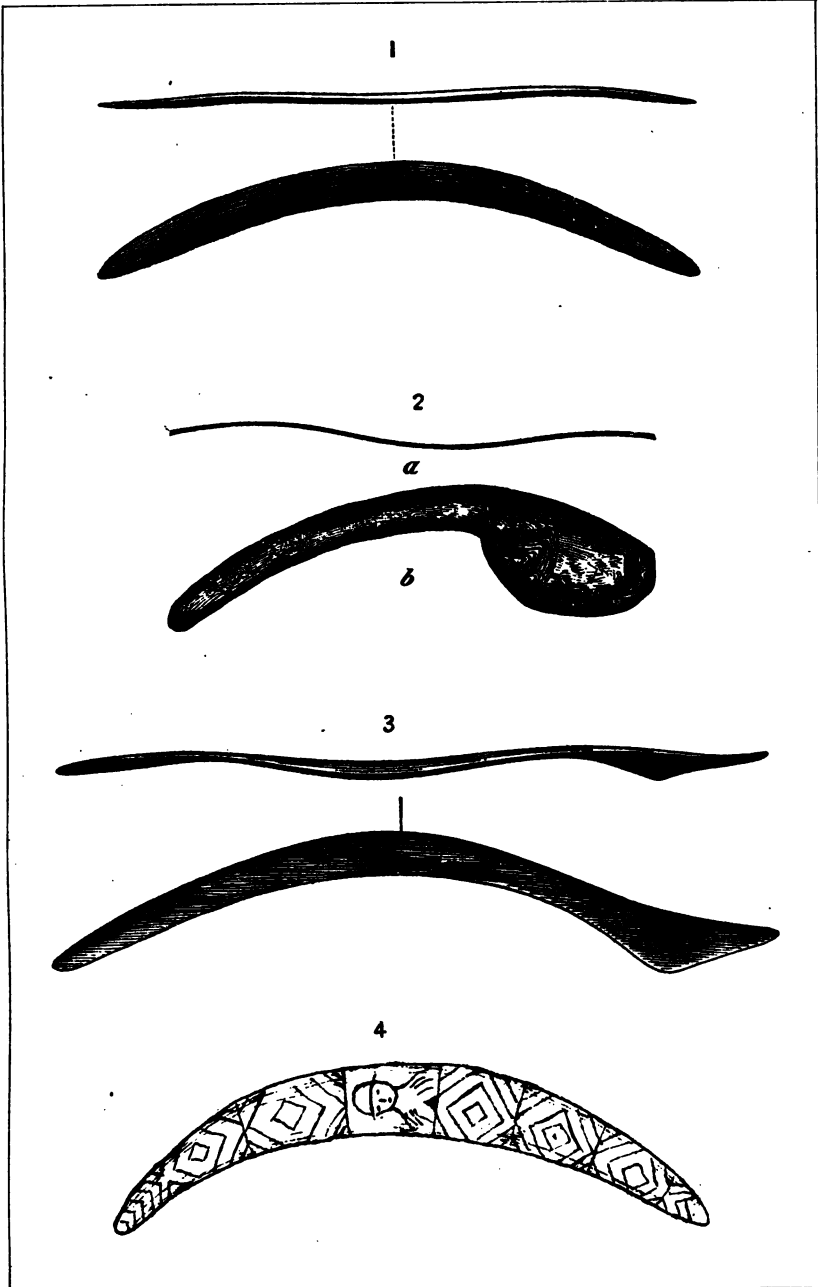
of the grass ; and not until he has got into the right position will he shake the weapon slightly so as to feel his muscles are under command. More than once will he make an effort as if to throw it, until at the last moment, when he feels he can strike the wind at the right angle, all his force is thrown into the effort, and the missile leaves his hand in a direction nearly perpendicular to the surface. The right impulse has been given, and it quickly turns its flat surface towards the earth, gyrates on its axis, rising in the air at the same time, makes a wide sweep, and returns with a quivering or fluttering motion to the thrower. Lieutenant Breton describes, in his "Excursions in New South Wales," the throwing of a boomerang as follows:—"I have seen a native throw one so as to make it go 40yds. or 50yds. horizontally and not more than 3ft. or 4ft. from the ground ; it would then suddenly dart into the air to the height of 50yds. or 60yds., describe a very considerable curve, and finally fall at his feet."

The aborigines of Western Australia fashion more than one kind of kiley, or boomerang ; and the form is quite distinct from that made by the natives of the southern and eastern parts of the continent.

These weapons make very extraordinary flights, and come back as the larger and heavier weapons do. Mr. Brough Smyth describes what he has seen the natives do at Corranderk* with the boomerang, and says that a skilful native seems able to do what he likes with the weapon. "He would throw a thin blade in such a way as to make it almost disappear in the distance ; indeed when the edge was presented it was for a moment or two impossible to follow its flight with the eye. It would then return, gyrate above the thrower in an absurd manner, descend and describe a curve as if it were about to strike him, go off in another direction, still descending, so as to alarm a group of blacks at a distance, and finally fall some yards behind him, the thrower the while regarding the weapon with an intelligent and amused expression, as if he knew exactly what it was going to do and where it would fall."

In Victoria the natives have a war-boomerang, always used in battle, as in Plate 65, Fig. 1. Usually the war implement is not so much curved as the others, the best weapons being nearly as straight as the blade of a sword ; and there is seldom any twist in this as in the lighter boomerang. They are made of the hardest wood, are very neatly fashioned, have a sharp cutting edge, and in battle are very dangerous weapons. This kind is about 30in. in length ; the breadth is 1½in., and the greatest thickness of the blade is ¾in. The weight is about 10ozs., but some are not more than 8ozs.

* Aborigines of Victoria, Vol. I.



Should it strike a man in the abdomen it would cut its way through his body. Mr. J. F. Mann says he has seen one pass through the body of a large kangaroo.

There is another kind of boomerang in use only by the tribe on the Ovens river, in Victoria. It is seldom thrown, but is more generally employed in battle to strike and cut at the enemy; and is believed to be a more dangerous weapon in the hands of a brave and experienced warrior than the boomerang previously described. The length from point to point is about 2ft. 3in., the greatest breadth of the blade is $5\frac{1}{4}$ in., the breadth of the lower part is 2in., and the thickest part (about the centre of the blade) is $\frac{3}{4}$ in. It is smoothed to a fine edge, and ornamented with lines in relief at one part where it was not practicable for the maker to show the pattern by incisions.* This weapon is the only one I have heard of which has been carved in Victoria, and is intended to represent a lagoon, probably an ana-branch of the river, the space enclosed by the lines showing the country inhabited by the owner of the weapon. (Plate 65, Fig. 2.)

Another instrument is used by the River Murray natives as a sword would be wielded by a soldier.

The length of this boomerang is 36in., the greatest breadth is $3\frac{1}{2}$ in., the breadth of the lower part is nearly $2\frac{1}{2}$ in., and the greatest thickness of the blade is nearly $\frac{1}{2}$ in. It weighs from 9ozs. to 10ozs., is made of very hard wood with exceedingly sharp edges, and is undoubtedly a formidable weapon. *It is also much curved, and, whether in striking or throwing, would give great advantage to the native who used it. (Plate 65, Fig. 3.)

The following illustration is a carved boomerang from New South Wales, and is depicted in Lieutenant Breton's work on that colony, published in 1833. In the centre is the figure of a man wearing a round hat, dating its manufacture at some period of time between the establishment of that colony and the time when it came into Lieutenant Breton's possession. The designs on the other parts are of a character common to all the tribes, and are the rudiments of an art which gave splendor to the palaces of Chaldea, Mexico, and other ancient nations. (Plate 65, Fig. 4.)

In seeking for the origin of the boomerang, Mr. Hubert de Castella, of Victoria, suggested to Mr. Brough Smyth that the aborigines may have derived the invention from observing the shape and peculiar turn of the leaves of the white gum tree, which, as they fall to the ground, gyrate very much in the same

*Aborigines of Victoria, Vol. I. * Curve as seen on holding the weapon with the blade from the body; † side view, is ornamented in the same manner on the other side.

manner as the boomerang; and if one of the leaves is thrown straight forwards it makes a curve and comes back. Such an origin for a weapon so remarkable is not to be set aside as unreasonable.*

The singular properties of the boomerang interested the late Sir Thomas Mitchell, and from it he evolved the principle of the boomerang propeller for steamships. In a lecture he delivered before the Australian Society in December, 1850,† he describes many interesting facts connected with it. He says:—"Of all the novelties presented by New Holland or New South Wales to Europeans, the original human inhabitant has always appeared to me by far the most interesting, could he but tell us his history. What may be gathered from his language? Is there anything occult amongst his *coradges* (or priests) handed down by tradition? Or can we learn anything from his arts, seeing how simple and yet efficient his means and appliances are? Nature alone, or his Maker, must have taught him these when the Australian man first began to exist. How ancient, then, may not these weapons be? So few in number, yet so efficient. The spear and boomerang are available either in war or the chase, although the club seems chiefly intended for warlike purposes. The missiles are nicely adapted to the resistance of fluids and the laws of gravitation. Even in the form of clubs the centre of gravity seems to have been most fully considered. But it is in the use of such missiles and clubs that these children of Nature show how well they know her laws. By means of the wommerah, or throwing-stick, the spear is thrown with much greater momentum, and of course increased velocity. The angular club, the rotary shield, the elastic handle of the stone hatchet, all appear very original, but yet strictly consistent with whatever science teaches, and not susceptible of improvement by anything to be learnt at colleges. The boomerang is one of the most remarkable of these missiles. Its flight through the air from the hand of an Australian native seems in strict obedience to his will. In its return after a varied course to the foot of the thrower this weapon seems so extraordinary that a vice-president of the Royal Society, about twelve years ago, observed to me 'that its path through the air was enough to puzzle a mathematician.' Such a remark by one of the ablest mathematicians of his time was not forgotten. On the contrary, it was remembered on the next occasion when I had opportunities of studying the flight of boomerangs thrown by the hands of Australian aborigines, and then I perceived that in its rotary motion through the air a hollow centre of greater or lesser diameter, but usually of about one-third

* Aborigines of Victoria, Vol. I. † *Sydney Morning Herald*, January 11th, 1851.

of the disc, was described by the whirl of the boomerang, and it occurred to me that the centre of the whirling motion might be found in a line of equilibrium which should divide the surface acting on the air into three portions in such manner as that the eccentric portions should equal the central one. The discovery of this centre, insignificant as it may appear, was still something new, for on attaching a centre to a boomerang it was possible to show that this centre was not only during its rotary motion the centre of that motion, but also the centre of gravity when in a state of rest, while it was apart from and quite clear of every part of it. The natives, when bent on exhibiting the more curious flights, twist the boomerang by placing it at the fire, evidently for the purpose of giving it the property of spiral movement, thus showing how well they understand the screw action upon the air. On making a small wooden model with a spiral turn like a screw, and giving it (by means of an attached centre and the fork and cord of a humming top) rapid rotary motion, the model ascended to the roof of the room with such force as to be broken in pieces against it. . . . The inner edge of the boomerang is found to form a cycloid. . . . The outer edge consists of two parabolic curves whose foci appear to overlap, so as to be both in the axis of motion. These curves are presented by a section of the half boomerang when at an angle of 45° with the axis."

Lieutenant-Colonel Mundy in "Our Antipodes" writes:—"There are two kinds of boomerangs—that which is thrown to a distance straight ahead, and that which returns on its own axis to the thrower. I saw a native of slight frame throw one of the former 210yds., and much further when a ricochet was permitted. With the latter he made casts truly surprising to witness. The weapon, after skimming breast-high so as to be almost invisible, suddenly rose high in the air, and, returning with amazing velocity towards its owner, buried itself 6in. in the turf within a few yards of his feet. It is a dangerous game for an inattentive spectator. An enemy or a quarry ensconced behind a tree or bank, safe from spear or bullet, may be taken in the rear and severely hurt or killed by the recoil of the boomerang. The emu and kangaroo are stunned and disabled, not knowing how to avoid its eccentric gyrations. Amongst a flight of wild ducks just rising from the water, or a flock of pigeons on the ground, this weapon commits great havoc."

I have in my possession a boomerang made from myall wood by a native of the Port Augusta tribe, measuring 3ft. 9in. long, $2\frac{1}{2}$ in. wide in the middle, and $\frac{3}{4}$ in. in the thickest part, and it weighs

28½ ozs. One side is perfectly flat and without ornamentation, whilst the other is rounded off and covered from one end to the other with incised parallel lines all of the same width and depth. This weapon was used both as a boomerang and a sword by its native owner. I have another made by the same tribe, also of myall wood, measuring 3ft. 2in. in length, 1in. in thickness in the middle, and 2½in. in width; it also is flat and plain on one side, but on the other is rounded off and also ornamented with incised parallel lines, and divided into six equal spaces by small round holes, each containing five sets of incised lines, each set being separated from the other by a space of a quarter of an inch. The centre set consists of five lines, the upper and lower of four lines each. This boomerang was used in a fight.

Mr. Bradshaw, in his explorations in north-western Australia, describes how in the morning the wild natives of the district where they had camped during the night watched their preparations to pursue their journey:—"The striking of our large general tent—it being loosed from its moorings and folded into a small parcel in a few moments—was the subject of special merriment and exclamation among them. They were all armed with spears and nullahs; some had what appeared to be a rude kind of bow and arrows, but none had boomerangs."

THE NULLAH-NULLAH.

The two dreadful weapons (Plate 66) were obtained from the New South Wales natives and are used in a hand-to-hand fight. They are made from the natural growth of the wood, the root of which is cut into a round knob; that portion held by the hand is made rough with lines or notches, so that it may be held with a firm grip. The native name for this weapon is nullah-nullah. They vary much in shape, their form being directed by the figure of the root in its natural state, as may be seen by the figures here displayed. In one the root has been left in its original shape, whilst in the other it has been cut and trimmed into a spheroidal figure. They are used for striking at the head only. (Plate 66, Fig. 1.)

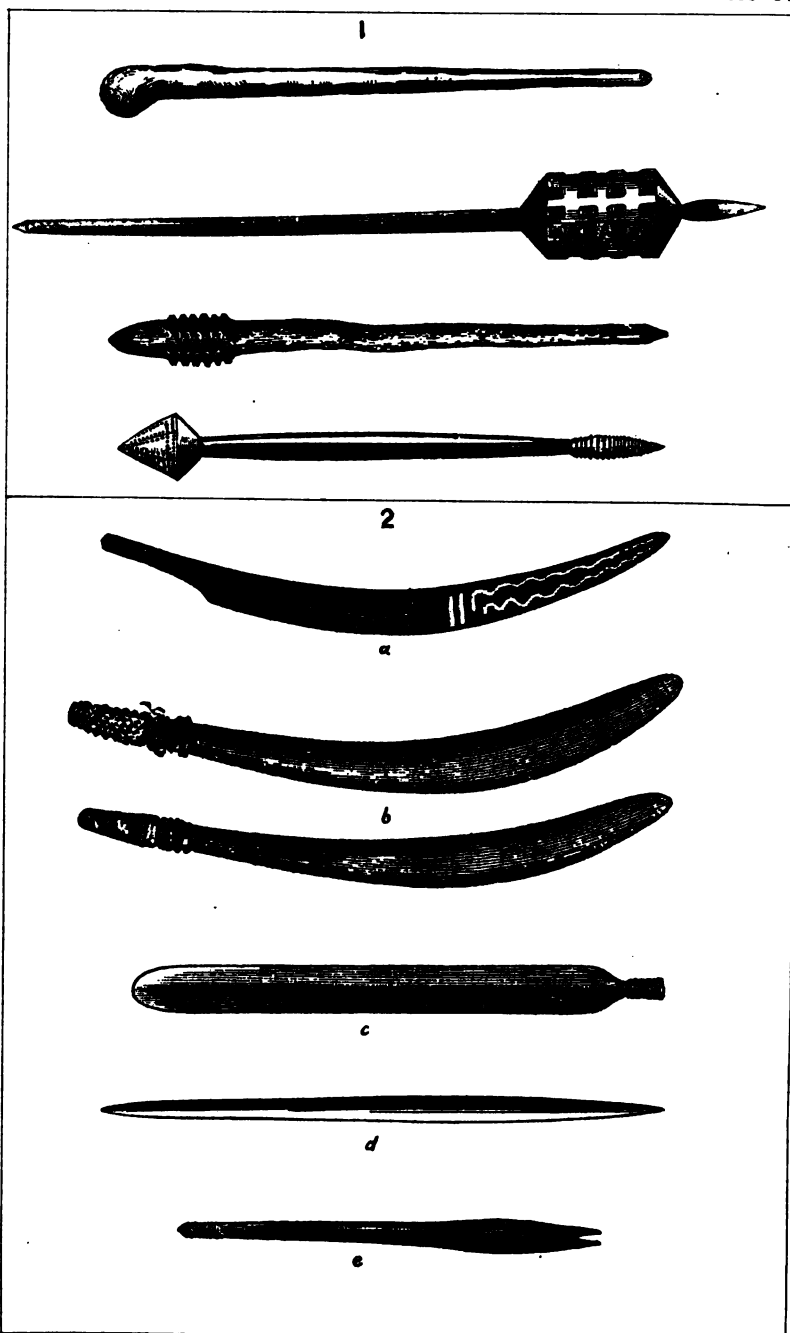
THE WADDY.

The waddy, or club, is used in single combat, when both the combatants are provided with the strong wooden shield. Blows are aimed at the head only with this weapon as with the nullah-nullah. It is heavy and strong, and made of the red gum, or sheaoak, or other hard and tough wood. The shape varies with the taste of the native maker, as also does its ornamentation. Some



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are altogether free from ornament and are simply a hard knobbed stick, which, however, may deal a deadly blow when wielded by a powerful arm.

Plate 66, Fig. 2, represents different aspects of one and the same weapon—a destructive club called by some of the Murray natives Koom-bah-mallee.*

The upper one (shown in Plate 67) is the root and stem of the tea-tree cut short and the root fashioned into a knob. The second one is used by the tribes on the River Burdekin, Queensland. The third is not uncommon in Victoria and amongst the tribes located on the Lower Murray. The next is a large and heavy weapon, made and used by the natives of Cooper's Creek; the sunken parts are painted white and the protuberances are colored a bright red.† The last two are used in single combat in the same way as the others above spoken of, but are the more dangerous because of the facility with which the point can be suddenly turned at the moment of striking, when it is difficult to avoid the blow. †

SWORDS, DAGGERS, ETC.

Very tough, hard, and heavy wood is selected for the sword, and is used by the natives of the eastern colonies as well as by those of the south and west. The form of this weapon varies, as does also the wood of which it is made. In Queensland it takes two forms; near Mackay it is curved and is used with both hands, and resembles the third one here displayed. It is 2ft. 11in. long and rather more than 2½in. in breadth. It is colored a bright red and ornamented with rude serpentine streaks of white clay near the point, and it weighs 4lozs. Its special use is to strike the opponent's neck and break it. (Plate 67, Fig. *a*.)

The second and third (Fig. *b*) are manufactured by the natives of Gippsland, and also the natives of the River Murray. The broad flat one at the bottom is used in Queensland, and also the southern portion of Western Australia, lat. 30° 25' 30", long. 123° 21' 23". The length of those of the Queensland tribes is from 57in. to 60in., and from 3½in. to 5in. in breadth, and from ½in. to ¾in. in thickness. It is made of hard, tough wood, the weight varying from 6lbs. to 10lbs. The handle is bound with twine, which is firmly fixed to it with gum, giving a very firm grip; and being sharp at both edges it is a most formidable weapon. The natives of Port Darwin make a similar sword.

Mr. Ernest Giles says at Queen Victoria Springs he found a number of long, flat, and flexible sword-like weapons; some

* Brough Smyth, p. 300.

† The Aborigines of Victoria.

were ornamented with slanting cuts or grooves along the blade, others with square, elliptical, or round figures. Several of these swords were 7ft. long and 4in. or 5in. wide. They were used by both hands, and when wielded with force were formidable enough to cut a man in half at one blow. There are some of these swords in the Adelaide Museum, and were obtained from the western part of Queensland, near Innamincka. The handles are only large enough for one hand, and when held straight out at arm's length are so heavy that few Europeans can hold them. It is difficult to understand how they can be in any way an efficient weapon in the hands of the Australian natives, unless they are far more powerful men than Europeans.

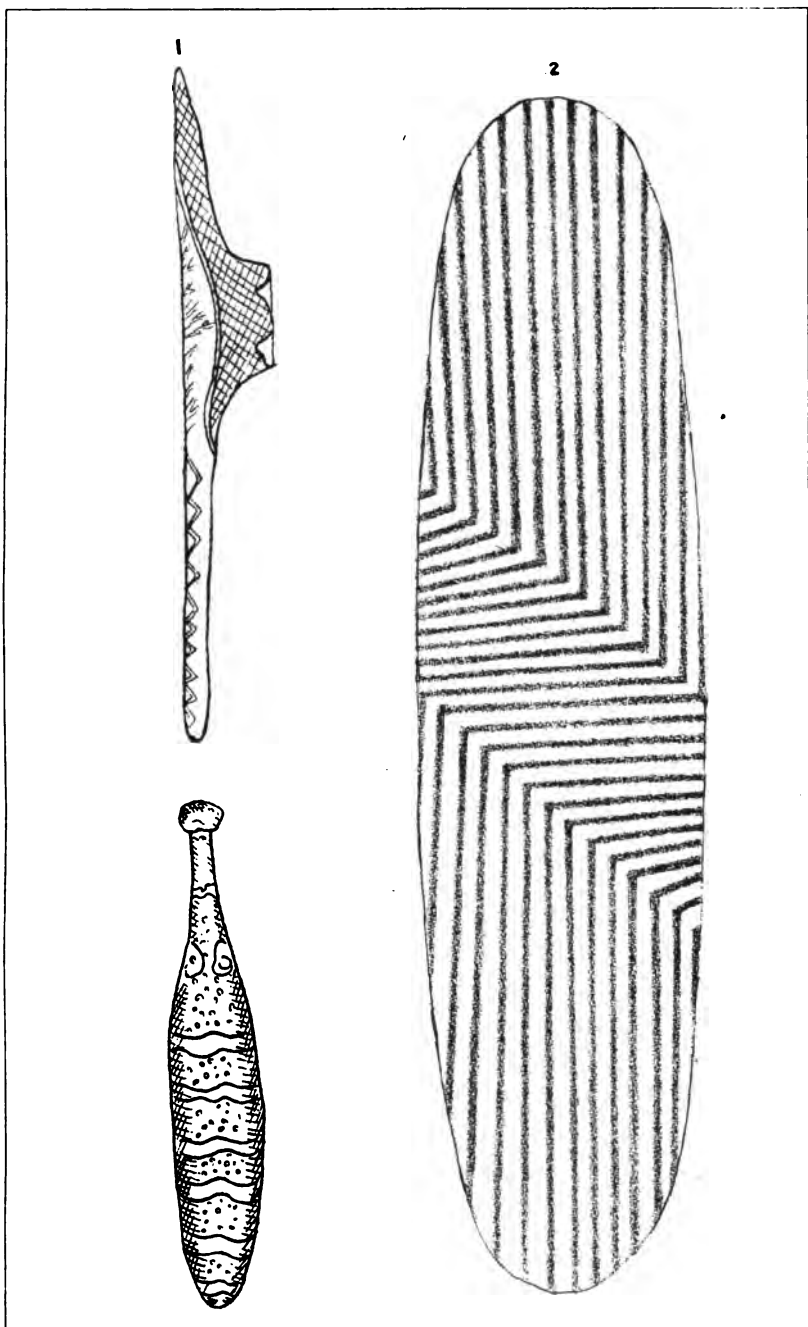
Another form of sword in use among the Coorong tribes was sharp on the lower edge only, and was as near a knife-like form as possible. (Fig. c.)

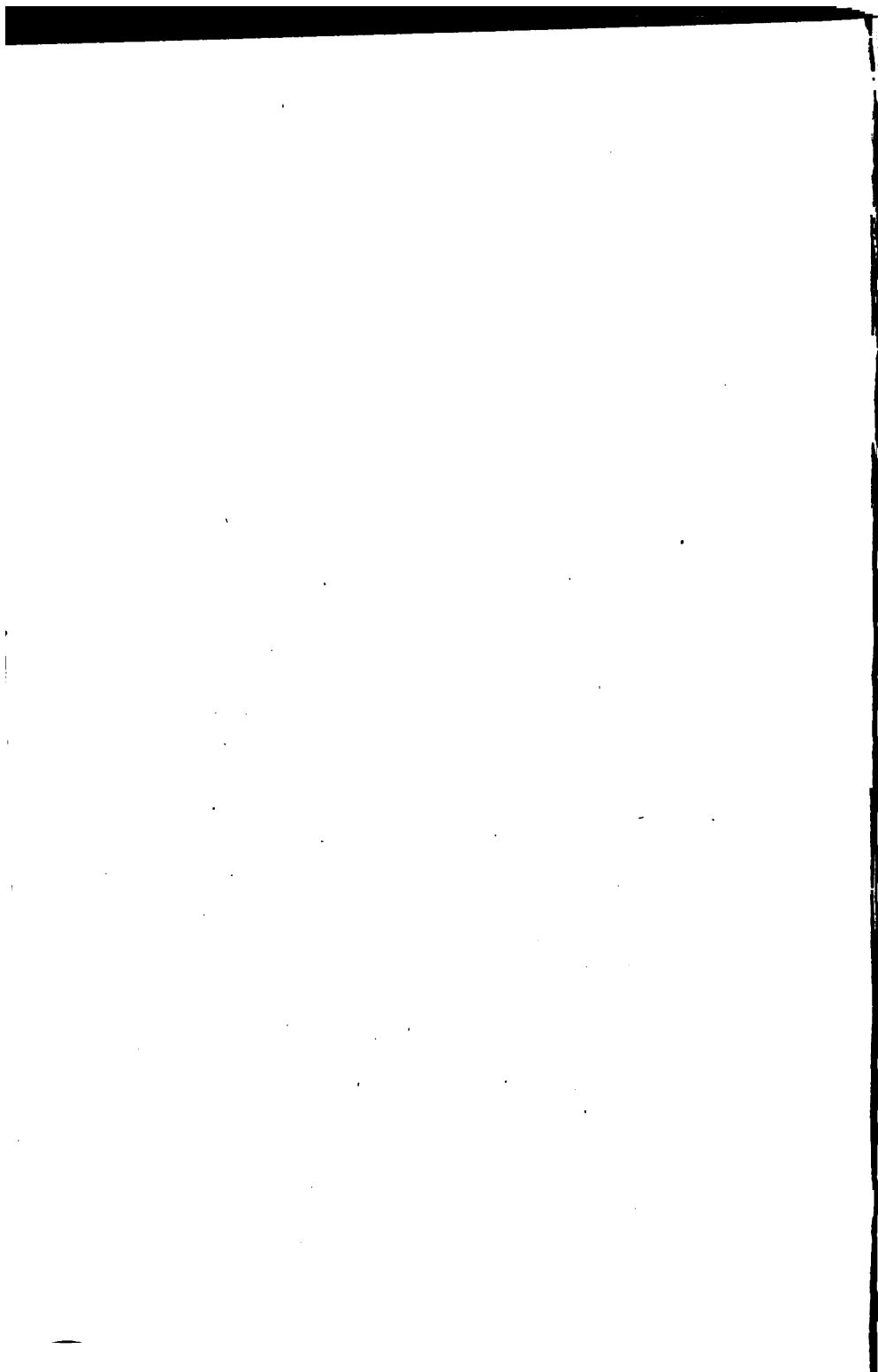
The natives use a short stick dagger, not more than 2ft. 6in. in length, with which dreadful wounds are inflicted. It is employed in close combat only, and, when used, is grasped by the warrior in the middle, making short stabs at the face, neck, breast, or sides of his enemy. The hunter also uses this weapon as a missile, with which he kills small birds, lizards, or such small animals. (Fig. d.)

The natives of Queensland, near the Mackay river, use a double-pointed dagger in their duels. It is also used for throwing at the enemy, as well as in stabbing when in close combat. (Fig. e.)

Amongst the Port Lincoln tribes the *warpo*, or dagger, was in common use, both for fighting and hunting; but it had only one point, and the blunt end or handle had string fixed round it with gum, or it was cut and carved, to give a firm hold or grip when being used.

In the National Museum at Adelaide is a beautiful battle-axe and spear combined. It is 3ft. long was obtained from New South Wales, and is intricately carved; the point and edge are very sharp, and it must have been a most deadly weapon. The club shown below it is from Lake Hope, in South Australia, and is beautifully carved; both of them are made out of myall wood. (Plate 68, Fig. 1.)





CHAPTER XI.

DEFENSIVE WEAPONS.

SHIELDS.

There are two kinds of shields used, mostly in single combat, for warding off blows given by the sword, boomerang, or club, and they are generally ornamented either with carvings or with paint, or with both. This ornamentation is always on the face of the shield, although it sometimes bears the token either of the man, the clan, or the tribe on the back of it. The usual proportions of the war or solid wood shield are as follows:—Length, from 3ft. to 3ft. 6in.; depth, about 4in. to 5in.; the size of the aperture for the hand is from 3in. to 4in. One in my possession, which was used by a native of the Murray tribe at Overland Corner, is 31in. long, 3in. wide, 4½in. deep, and the handle is 4¾in.; it is ornamented both on the front and the back. It is made of ironbark, as are most of the shields; some, however, are made of the box, and others of the bark of the gum tree.

On some of the shields a mark signifying the name of the owner is carved or painted. The ornamentation is usually carved in an incised form, and varies with the tribe or the artistic ability of the carver; in some very rare cases the design is raised on the shield, the intervening portions being cut away. As an instance of this mode of carving, the shield in Plate 68, Fig. 2, will give a very good idea. The raised and apparently white marks on the shield are in reality red on the original, and the lines between are black. The Western Australian native makes his shield of the sandalwood or the myall, and the lines he depicts thereon are of a novel character compared with those of tribes living in other parts of the continent. The lines, whichever way the shield is held, show what the heralds-at-arms would designate “a bar sinister.”

They are beautifully carved, the inner side being smooth and polished in a surprising degree. In one which was in the possession of Sir George Grey the lines were of a wavy character, although the raised portions were all painted red.

In some parts of the Northern Territory, and also in the northern part of Western Australia, the shields are made of the sap wood of large trees; they are very thin and beautifully finished, adorned

with long waving lines instead of the zigzag or diamond patterns so generally used in other portions of Australia. It is just possible that the aborigines who manufacture these kinds of shields may have been taught these beautiful forms of decoration by the Malay trepang fishers who frequent the North-West Coast in their proas for fishing purposes. The natives of these parts display marked aptness and ability in the preparation of their native weapons and other articles of war, in which their accuracy and correctness are matters of astonishment to the cultivated eye of the European.

A small shield made of the inner bark of the gum tree and about 30in. long and about 10in. wide was used in a tribal war that I witnessed in 1853 between the Encounter Bay natives and some others from the Coorong. The fight ended when one of the young men had received a spear in the calf of the leg, after which all the contending parties fraternised and feasted together during half the night.

Other shields are made of solid wood, and exhibit the usual modes of ornamentation of the front. The usual length is from 35in. to about 40in., breadth 5in., and depth (or thickness) about 4in.; the handles are from 3in. to 4½in.; the weight varies from 2½lbs. to 3½lbs. (Plate 69, Fig. 1.)

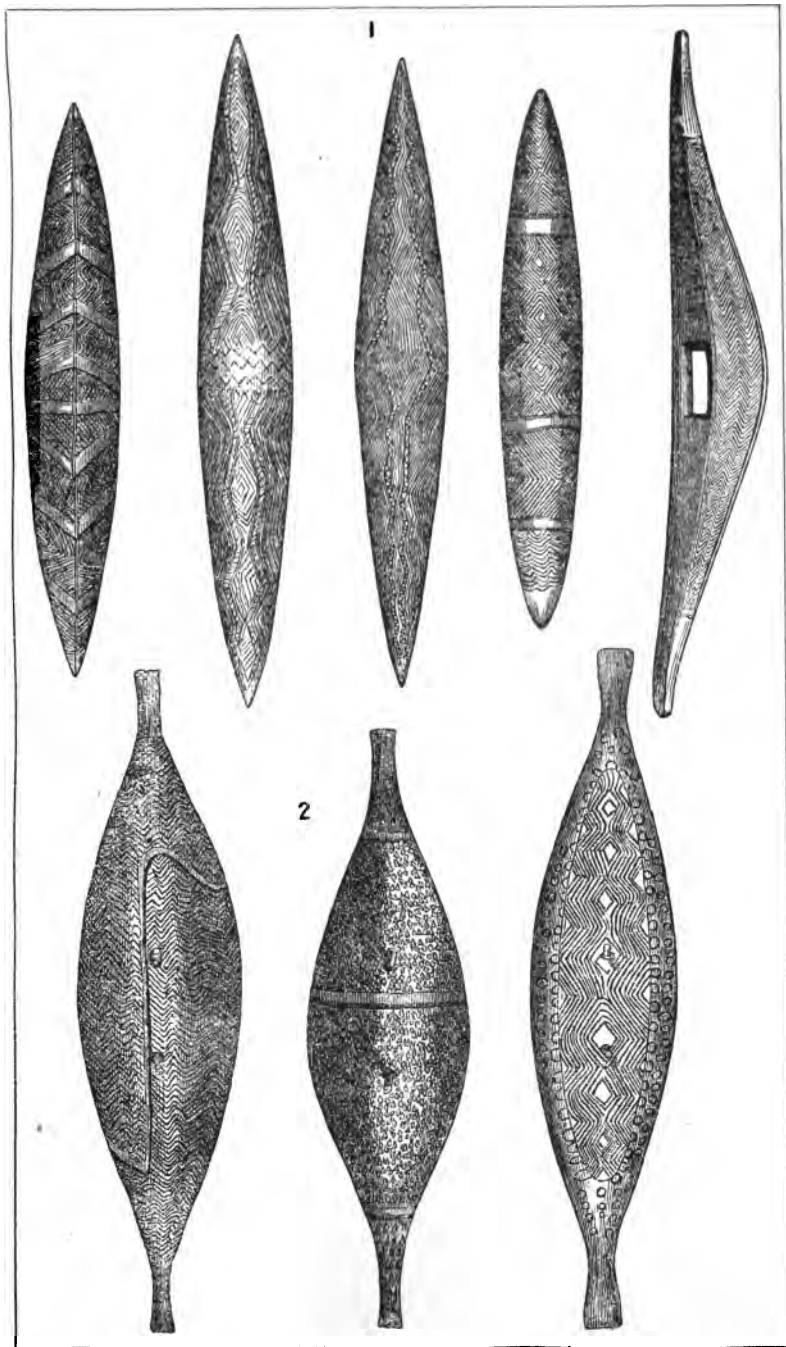
Shields having an angular face and ornamented in a similar manner to these are used by some tribes. It must, however, be understood that natives of any one tribe—and indeed in some cases its own clan—may have a shield which in some respects, either in ornamentation, form, or material, may differ from that which is the one adopted as characteristic of the tribe itself.

A shield cut out of the solid wood in my collection is cut from a porous mass, evidently of the *Erithrina vespertilio*, of Queensland, and, contrary to the usual custom, is ornamented on all its sides. It is 1ft. 11½in. long, 6in. wide at the broadest part, and 4½in. thick at the apex. The ornamentation is of the diamond pattern, and must have taken a very long time to complete. I obtained it from Mr. E. Aldridge, hotel-keeper, Broken Hill.

The following examples are made of bark, generally that of the gum tree, the handles being fitted in so tightly that it would be easier to split the shield than to withdraw the handle, which is always thrust through the holes whilst in a green and pliant state. (Plate 69, Fig. 2.)

In another illustration the ornamentation is on the front of the shield; the length is generally about 3ft. the breadth 5in., and the depth (or thickness) varies from 3in. to 3½in.

In these examples it will be seen that the handle is a portion of the material of the shield. In making them the wood is cut out.





of the solid tree along with and at the same time as the bark. This requires great art, not only in the cutting out, but in perfecting the shape of the shield. (Plate 70, Fig. 1.)

Another defensive weapon is used alike by the Lower Murray natives and also by the natives of Gippsland, two places widely separated. It is a wooden shield, weighing about 2½lbs., but I have seen one which turned the scale at 3lbs. It is customary to wrap round that part grasped by the hand a piece of opossum skin, to prevent jarring of the knuckles when a blow is struck by a heavy weapon. (Plate 70, Fig. 2.)

The ornamentation of this class of shield is of a very simple character, and is made on the front of the shield only, and varies according to the artistic ideas of the artisan, although in some tribes the embellishment follows a stereotyped form. (Fig. 3.)

Another of these shields is a remarkable specimen of native art, and was the work of a native of Queensland, near Rockingham Bay. It is in form an irregular oval, its length being 37in. and its breadth 15in. at the widest part; there is a boss, or knob, in the centre about 3in. in length, 1½in. in width, and about 1in. in height, the whole colored black, yellow, white and red, in stripes and patches. The wood of which it is made is very light.* (Fig. 4.)

Others, similar in form, from the same neighborhood, made from the root of the *figus*, are painted in blue, black, red, and yellow bands, and in a quaint and zigzag pattern.

The shields in general use by the tribes on the south coast between Streaky Bay and the Glenelg river are made of the bark of the gum tree, and in form, as well as in style of ornamentation, vary considerably from those of other tribes on the continent.

The one in Fig. 5 is carved, and then painted red, the black lines and broad arrows being red on the original shield. It was made by a native of the Lake Alexandrina tribe.

On a creek north side of Davenport Range there is a large number of the bean tree growing. The wood is light, and is manufactured into shields, which the natives barter with other tribes for ochre and other necessities. On this creek is a large manufactory of these weapons.

SURGERY AND MEDICAL TREATMENT.

When Europeans first established colonies in Australia they found amongst all the tribes whose acquaintance they made certain men who practised the "healing art" and who were believed to possess not only the power to cure, but also cause diseases, and

* The Aborigines of Victoria.

even death. The fear of witchcraft was an essential part of their existence, and it became an absolute necessity for each tribe and clan to have amongst them at least one of these "doctors," "wizards," or "sorcerers," to whom the native could apply when the pains of some mysterious ailment attacked him. He would explain to this wonderful but dreaded individual the nature and position of the pains which assailed him, and would submit with unflinching nerve to any course this all-powerful physician would direct, and would take the most disgusting filth as medicine, so implicit was their faith in the skill of their wise doctor.

They resort to bleeding, to baths of various kinds (cold, hot, and vapor), and to the manipulation and extraction of several sorts of material which are said to have carried the disease. Sores or wounds are generally left to take care of themselves, but for diarrhoea, colds, headaches, or rheumatism they apply outward remedies, which in many cases are certainly effective. The favorite treatment is in rubbing, pressing, and even treading on the afflicted part; and sprinkling, washing, or bathing in cold water for fever or inflammation. Bleeding of the arm in case of headache is also frequently resorted to. In some cases the head is cut open with a sharp flint or piece of shell; this is frequently done in hot weather.

Their manner of making a vapor bath is as follows:—They heat stones or balls of clay in the same manner as they do for cooking their meat; the patient then sits on a sort of stage made of sticks. The hot stones are placed under; wet water weeds are put on the stones, and the space below the stage being cleared as effectually as possible the sick person is covered up with rugs, and the steam ascends, enveloping the patient. This method is said to be most efficacious. Amongst the tribes on the Lower Murray a system of steam bathing is practised, as follows:—A hole is dug in the ground about 1ft. deep, at the bottom of which is placed some lighted bark, and on this fire damp leaves are laid to a level with the top of the excavation; over the hole the patient is placed in a state of nudity. The portion of the body affected is placed immediately above the leaves, and these, acted on by the fire, emit a steam, which is not permitted to escape, as opossum rugs are heaped on the doctored patient, causing a strong perspiration to burst from every pore. They also resort to the principle of counter-irritation, and the following case is reported to have been witnessed on the Lower Murray:—A black was suffering from a very severe attack of sandy blight, and the means adopted by his white friends were unsuccessful. Another blackfellow undertook to cure him, providing he would undergo the operation proposed. Consent being obtained, the operator

plucked some hair from his head, placed it in his mouth and ground it between his teeth, reducing it to very fine particles. Placing the sufferer in a standing position against the wall of the hut, he opened the eyes with the finger and thumb of each hand, and spurted the minute particles of hair from his mouth into the other's eyes, causing the most acute agony to the sufferer for some time. It is a fact that the eyes, so soon as the pain had abated, began rapidly to improve, and in a few days were perfectly restored.

Mr. Gason relates that he saw a native of the Dieyerie tribe who was ill call for the native doctor (or *koonkie*); after being treated in the following manner he apparently recovered:—The doctor examined him, felt the part affected, then rubbed him and sucked the part until he had ascertained (as he said) the cause. He then retired, taking with him a piece of wood about 1in. or 2in. in length, and returned with a piece of red hot charcoal from the camp fire, rubbing it in his hands to warm them. He then felt the disordered part again, and after a little sucking pretended to have drawn out the piece of stick from the patient's body. He repeats this process again and again, each time pretending to bring out substance after substance, such as twine, a pebble, or charcoal, and every one of the onlookers was satisfied. In treating slight sores, cuts, bruises, and the like, earth is applied to the part affected. In the case of stings, any kinds of leaves of bushes, heated at the fire, are applied to the part as hot as the patient can bear, and the cure is said to be effectual.

A doctor will occasionally administer a decoction of a fleshy-rooted geranium. Incantations, however, to which all maladies are ascribed, are likewise the most powerful curatives. Mr. Stanbridge describes the operations of the doctors:—"The patient is seated in front of the operator, who utters a monotonous chant, making passes by drawing his hands downwards over the parts affected, and at intervals rubbing and blowing upon it. At the conclusion, supposing the disorder to be rheumatism, hot ashes are applied."*

Snakebite is treated by putting ligatures some distance above and below the wound, and then opening the largest artery in the vicinity of the bite. Several incisions are made, until copious bleeding is the result. The ligatures are not removed for two or three days, when the patient is all right. Amongst the tribes on the Mary river, Queensland, in case of illness, the doctor is provided with a long cord spun from fur, and a vessel containing water. One end of the cord is fastened round the body of the sick person, immediately over the seat of pain; the other end lies in the water. The doctor, who is seated between the patient and the water-vessel,

* Aborigines of Victoria, by W. E. Stanbridge.

holding the cord midway with both hands, rubs it backwards and forwards across his gums, causing them to bleed. As the saliva and blood accumulate the mixture is spit into the vessel. This process is gone through in a slow and deliberate fashion until the water is quite discolored. This bloody and frothy mixture is supposed to have been drawn from the patient, who drinks the contents, and expresses himself relieved by the operation and the potion. In some of the tribes in the south this mode of making medicine is done by the women relatives of the sufferer, who then drinks the potion thus prepared for him.

For headache a band was generally fastened tightly round the head, in addition to bleeding.

Fractured bones knit with wonderful rapidity. A boy who had his collar-bone broken three days afterwards appeared to be quite well, as his movements were not in the slightest impeded, nor did it seem to trouble him at all. The Rev. H. Wollaston, who was formerly Assistant Colonial Surgeon in Western Australia, states that he started from Albany, King George's Sound, in the summer of 1852-3, to pay a visit to Mr. Cheyne, at Cape Riche, about seventy miles distant, accompanied by a native, on foot. They made about forty miles the first day, and camped for the night in a clump of tea-tree scrub, near a waterhole. After cooking and eating their supply he observed the native collect the embers of the fire together, and deliberately place his right foot in the glowing mass for a moment, then suddenly withdraw it, stamping the ground and uttering a long-drawn guttural sound of mingled pain and satisfaction. This he repeated several times. On Mr. Wollaston inquiring the meaning of his strange conduct he only replied "Me carpenter make-em" that is "I am mending my foot." He then showed his charred great toe, the nail of which had been torn off by a tree stump, the pain of which he had born with stoical composure until the evening, when he had cauterised the wound in the primitive manner above described.* He next day bound up his toe in a piece of bark of the teatree, and continued his journey as if nothing had happened. He relates another of his experiences when living at Picton, near Bunbury:—A native about twenty-five years of age applied to him to extract the barb of a wooden spear which, during a fight in the bush some four months previously, had entered the chest, just missing the heart, and had penetrated the viscera to a considerable depth. The spear had been cut off, leaving the barb behind, which continued to force its way by muscular action gradually towards the back. Upon examining the native he felt a hard substance between the ribs below the left

* Aborigines of Victoria, Vol. II.

shoulder-blade. He then made a deep incision, and with a pair of forceps extracted the barb, which was made of a piece of hard wood about 4in. long, and from $\frac{1}{2}$ in. to 1in. thick. It was very smooth, and partly macerated by its four months' journey in the body. The wound made by the spear had healed long before this, leaving only a small cicatrix. After the operation, which the patient bore without flinching, he appeared to suffer no pain, and was perfectly well in a few days.

At King George's Sound Mr. Wollaston had a native visitor with only one leg; he had travelled ninety-six miles in that maimed state. On examination, the limb had been severed just below the knee, and charred by fire, while about 2in. of the calcined bone protruded through the flesh. This bone was removed at once by the saw, and a presentable stump was made, which was covered by the surrounding muscle, and the patient kept for a few days under Mr. Wollaston's care to allow the wound to heal, which it did very rapidly. On inquiry the native told him that in a tribal fight a spear had struck his leg and penetrated the bone below the knee. Finding it was serious he had recourse to the crude and barbarous operation which is not uncommon amongst these natives. He and his companions made a fire, and dug a hole in the earth sufficiently large to admit his leg, and deep enough to allow the wounded part to be on a level with the surface of the ground. The limb was then surrounded with the live coals or charcoal, and kept replenished until the leg was literally burnt off. The cauterisation thus applied completely checked the hemorrhage, and he was able in two or three days to hobble down to the Sound with the aid of a long stout stick, although he was a week on the road. A carpenter in the town made a wooden leg and carefully fitted it to the stump, when the native started to return to his home. Mr. Wollaston was, however, greatly surprised a few days afterwards when another native brought the wooden leg back, as his patient had got tired of it when he had reached fifty miles from Albany, preferring to spend his days with one leg only.

In Nickol Bay it is stated by Mr. A. K. Richardson that some of the tribe located there had had their limbs, which had been injured in battle, amputated with sharp stones. The natives of the south were well acquainted with the mode of setting a broken limb.

The native method of setting a broken arm is well illustrated in Angas's "South Australia," and I have also seen a similar method practised in the south-east part of the same colony. (Plate 71, Fig. 1.)

Mr. Ernest Giles, in his work "Australia Twice Traversed," Vol. I., page 131, mentions his black boy Tommy being thrown

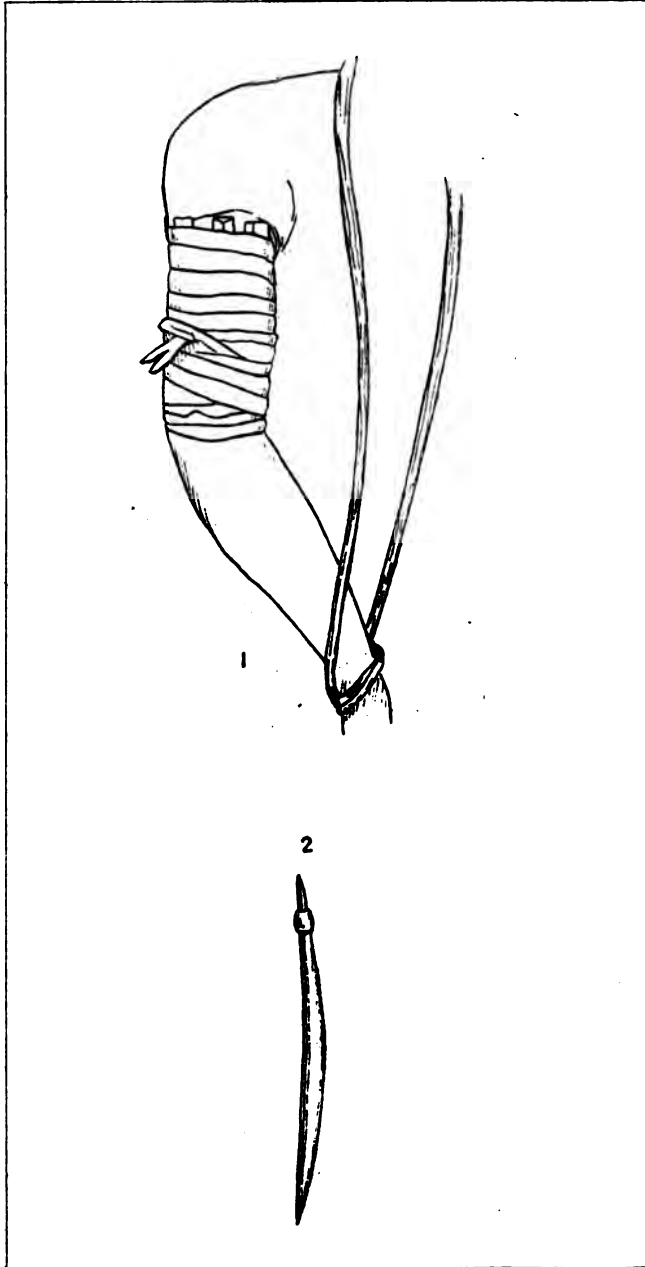
from his horse and breaking his arm. He then tells how a young blackfellow "had bound up the boy's arm with leaves and wrapped it up with bits of bark, damping it with water from the water-bag."

Mr. J. F. Mann in 1883 read a paper on "The Aborigines of Australia" before the Sydney Branch of the Royal Geographical Society of Australasia, and he gave the following as the medical treatment received by them. He says:—"Ailments are treated by rubbing the body over with the sap extracted from the apple or bloodwood tree, which, being of a most astringent nature, may have some effect. A counter-irritation is often brought on by making the patient stand on an ant bed for a few minutes. Sometimes an old man, or the *kooradgee*, fills his mouth with water and spurs it over the part affected. I have seen this done by an old woman to her husband, who had a swelled eye. The mode of cure is supposed to be a great secret; a great deal is done or supposed to be done by the *kooradgee* (doctor). Burying an arm or leg in the ground for a certain period is occasionally practised. On one occasion I called attention to the filthy condition of a little child; the mother quietly scraped two or three handfuls of earth together and threw it over the helpless brat." In another part of the same paper he relates the following incident as coming under his own observation:—"A blackfellow had fallen from a tree and dislocated his ankle; he was lying on the ground under his blanket when his brother accidentally trod upon the injured limb. This caused the poor fellow to shriek with pain. His brother at once threw himself beside the wounded man, and hugged him, kissed him, caressed him, and did all in his power to comfort him. It was genuine sorrow, and a most touching scene between these two half-naked savages."

Like many Europeans who swear by "faith healing," the ignorant black's belief and hope are more powerful in their effects than the medicines of the pharmacopœia. He believes firmly in the curative properties of his vapor or other bath, in the drink which is made for him from Eucalyptus and water, in a decoction of geranium, in his bleedings, his kneadings and rubbings and pressings and treadings, in his anointings with the sap of trees, the suckings of the parts affected, the withdrawal from his body of pieces of wood, bone, stone, or twine, in the power of his *koonkie*, *kooradgee*, or doctor to extract them, and in the wild incantations and dances of the old men. The hope which is engendered in him by his unfaltering faith strengthens him, and he recovers.

In the case of boils and hard swellings they lotion the part well with a decoction of wattle bark; if this is ineffective they boil





wild, marsh mallows and poultice the swelling ; if it should soften and not break they lance the part with a sharp bone, and suck the wound. They frequently get severe burns, which they dress by dabbing the parts with melted fat, and whilst this is warm they cover the whole with fur from an opossum skin, and the dust of the red ochre. For dysentery, to which they are much subject, they drink copious decoctions of wattle bark, which is of a most astringent nature, chew wattle gum, and make themselves pills of wattle bark and gum, which they take when retiring at night. For fever their treatment is almost always the cold water cure.

The natives of North-West Australia have utilised plants and their extracts for the cure of bodily ailments, as for instance—

The Goa-Loo-Wurrah (*Sarcostemma Australe*), which is used by the natives of the Northern Territory in the cure of skin diseases by breaking off a piece of the plant and applying the milky juice, as it oozes out, to the sore by touching it all over in a way similar to the application of caustic ;

Goa-Loo (*Alstonia Verticillosa*), the bark of the milk tree, is applied to cuts and wounds ; and

Gue-Way-lah, a kind of gum extracted from a species of Eucalyptus, is used as a plaster for wounds and old sores.

Plate 71, Fig. 2, shows the lancet used by the natives, which is a spine taken from the hind quarter of the porcupine (*Echidna Hystrix*). It is strong, tough, and very sharp. These spines are slightly flexible, and were used for bleeding, for extracting thorns, for pieces of spear-points, and the like.*

* The Aborigines of Victoria.

CHAPTER XII.

CEREMONIAL.

In New South Wales the ceremony of raising youths from boyhood to manhood is performed by piercing the septum of the nose to receive a bone, reed, or other ornament; also by striking out one of the front teeth. The natives assemble in large numbers for this ceremony, and for some days prior to the actual commencement of the rite great feasting and dancing take place amongst them. The performers in the dances are very highly ornamented, displaying a variety of tastes in their adornment. Collins, in his "Account of the Colony of New South Wales," gives a graphic description of this ceremony, illustrating the different phases of the rite by several plates, from which a good idea may be obtained of the ceremony. One of them represents the young men seated, while those who were to be the operators parade several times round the space prepared, running upon their hands and feet. A wooden sword stuck in the girdle worn round the waist, did not, when they were crawling on all-fours, look much unlike the tail of a dog curled over his back. Every time they passed the boys, they threw up the sand and dust with their hands and feet. The boys kept very silent, never once moving from the position they were placed in, nor did they seem to notice the appearance of the men.

It was understood that this first part of the ceremony indicated the endowment of the neophyte with whatever good or beneficial qualities the dog might possess.

The second and third parts of the ceremony consisted in investing the youths with power to kill the kangaroo. The operators fitted themselves with long tails of grass fastened to the hinder parts of their girdles, the sword used in the first part of the rite being laid aside.

Thus equipped, they put themselves in motion like a herd of kangaroos, now jumping along, then lying down and scratching themselves as these animals do when basking in the sun.

One man beat time with a waddy on a shield, whilst two others armed pretended to stalk and spear them. This was emblematical of their future exercises in hunting the kangaroo.

As this human herd passed the boys for the last time they quickly divested themselves of their tails, when each man suddenly

caught up a boy, and placed him on his shoulders, carrying him off in triumph toward the last scene in this exhibition. After walking a short distance, the boys were let down from the shoulders of the men and placed in a cluster, standing with their hands clasped and their heads drooping on their breasts. The men retired for a short time and when they reappeared were armed with the spear and shield. The leader stood in the centre and struck his shield with a club he held in one hand, giving them the time, as it were, for their exercise. At every third stroke on the shield the whole party poised and presented their spears at him, pointing them downwards and touching the centre of his shield. This indicated the principal business of their lives, the use of the spear.

They now commenced their operations for striking out the tooth. The boy was taken and seated on the shoulders of another native, who sat on the grass. A bone made very sharp and fine at one end was used for lancing the gums, as without some such precaution it would have been impossible to have extracted the tooth without breaking the jaw-bone. When the gum was properly lanced, a short stick about 10in. in length was applied as high upon the tooth as the gum would admit, while the operator stood ready with a large stone with which he struck the stick; the tooth was then after much difficulty forced out, the boy taken to a little distance, and the gum closed by his friends.

Commander Stokes, however, found that among some of the northern tribes, as also Sir T. Mitchell among some of the Darling tribes, that the teeth were all perfect, showing that this part of the ordeal is not universal.

The boy was now equipped by a girdle being tied round his waist, in which a wooden sword was stuck. A ligature was then put round his head, in which were stuck slips of the grasstree, which, being white, had a curious and not unpleasing effect. The left hand was placed over the mouth, which was to be kept shut; and during that day he was on no account to speak or to eat. All the boys were treated in like manner. During the whole of the operation the assistants made a most hideous noise in the ears of the patients, so as to drown any cries they might possibly utter, although it was made a point of honor to bear the pain without a murmur.

The blood that issued from the lacerated gums was not wiped away, but suffered to run down the breast and fall on the head of the man on whose shoulders the patient sat.

The boys were afterwards arranged in a row, when one of the natives came forward and applied a broiled fish to the gum of any one of the boys who had suffered from the stroke more than either of the others. Suddenly the initiated all started up, on

a signal being given, and rushed into the camp, driving before them men, women, and children, who appeared to be glad to get out of their way.

They were now received into the class of men, were privileged to wield the spear, the club, and the sword, and to engage in warlike exercises. (Plate 72.)

Plate 73 illustrates a dance of defiance and a declaration of war, and represents the war party in line being drilled in all the native wiles before attacking the enemy. The astonishing precision and regularity of all the movements gone through cannot be excelled by the best-drilled soldiers in the finest regiment of a European army. I have personally watched them for hours, and having served myself can bear undeniable testimony to their perfect efficiency as drilled troops.

In the ceremony of initiating young men into manhood an instrument is used called by the Coorong natives a wimarri; by those of Port Lincoln witarna, and by those of the Murray a wittoowitto, which is practically the sacred bullroarer (Jundun) of the Kurnai. It is regarded with dread and superstition by women and children, who are never permitted to see it, as it is carefully kept out of their sight by the old men. It is whirled round by a long string of plaited human hair, and makes a whizzing sound beating against the air; the sight of it is supposed to cause serious illness amongst the offenders. Several of these instruments are to be seen in the Adelaide Museum. (Plate 74.)

DANCES.

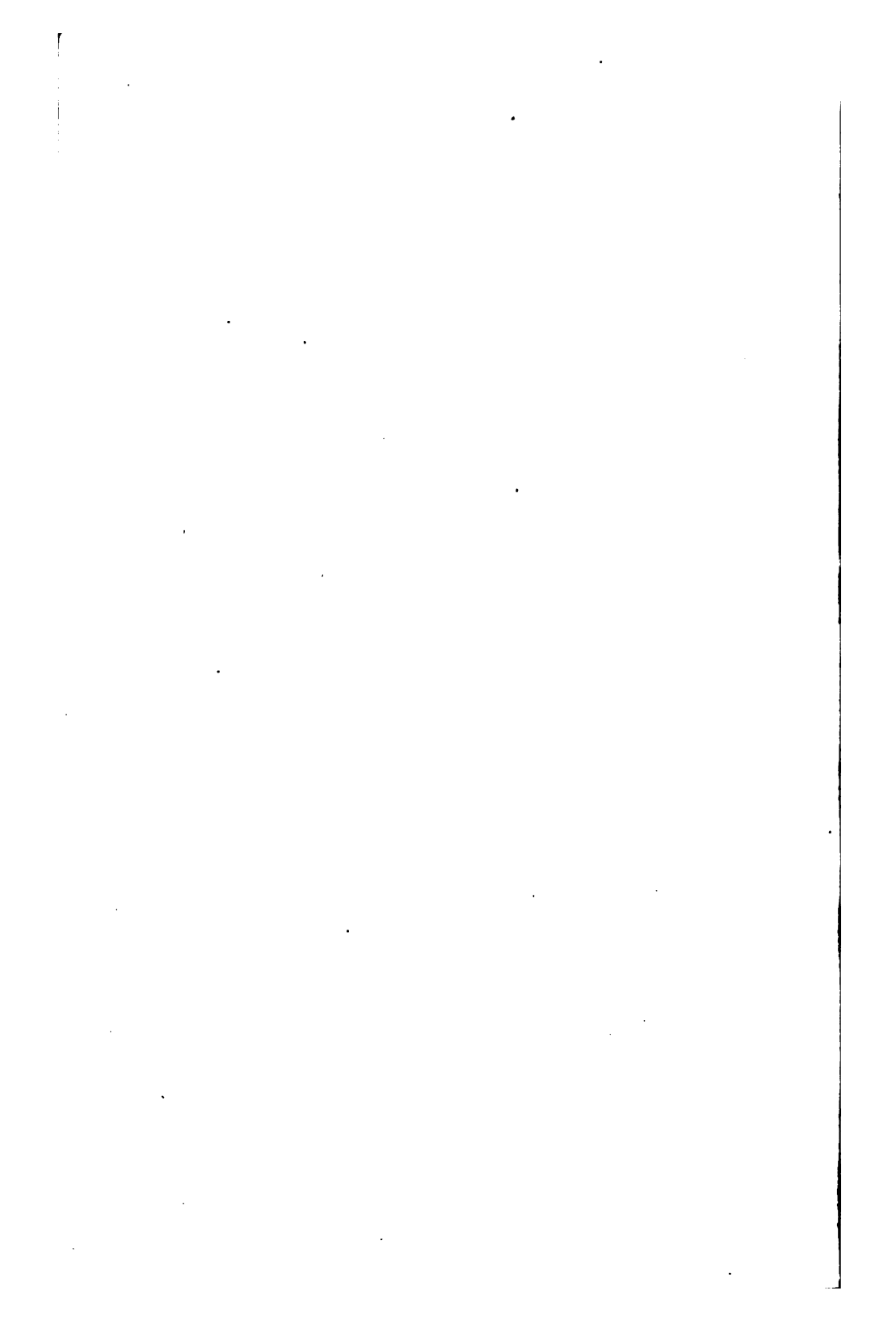
For many years there has been considerable curiosity among anthropologists as to the nature and significance of the native dances. Many of these are performed in secret only. Some—at which the women and youths are strictly forbidden to look under heavy penalties—partake of the nature of religious ceremonies; others are prayerful invocations for rain or food in one form or another. Others again are expressive of the joy of the tribe on the return of some portion of their number from a successful expedition. Many of these dances are wild and singular; others are mysterious in their surroundings, and are mostly accompanied by singing from the women or a recitative by the chief performer.

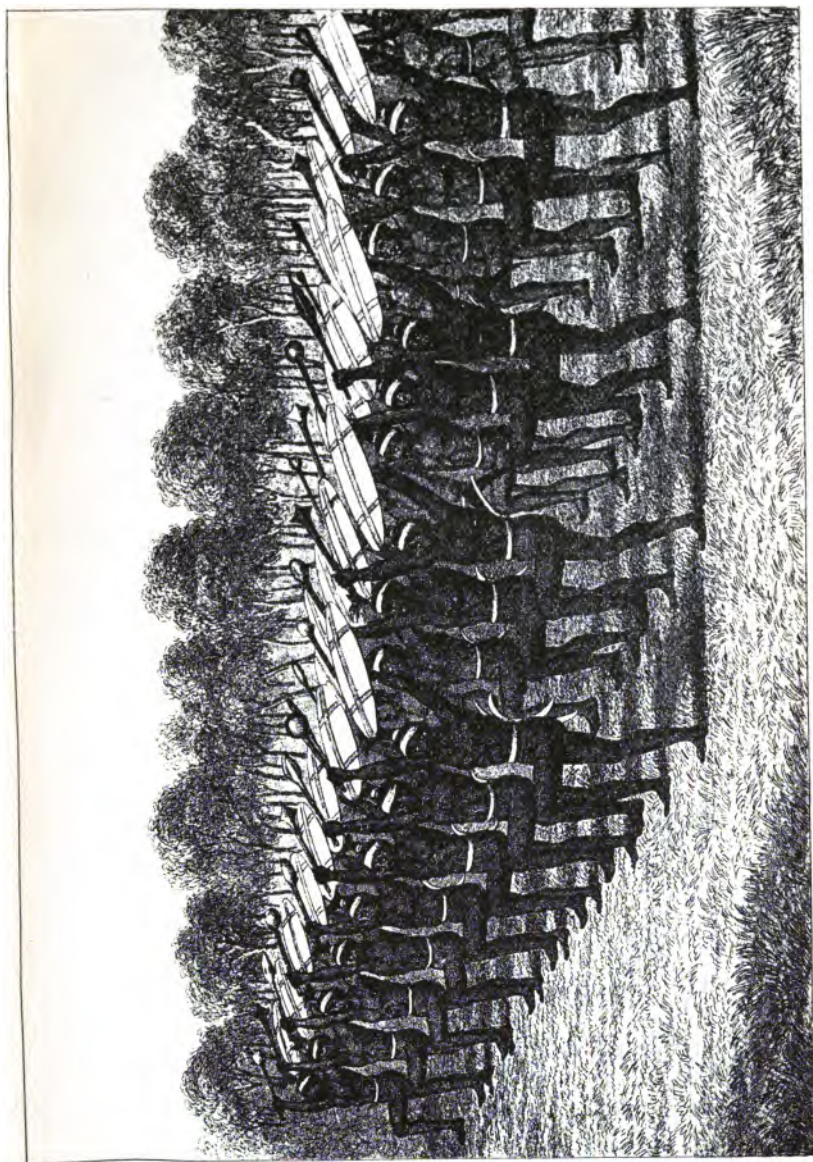
The Bora ceremonies, which occupy some days, and are often attended by natives from friendly tribes, invariably wind up with a dance. The surrounding trees are then deeply marked by various patterns, when the tribes move off to a distant spot.

Plate 72.



SKETCHED BY GENERAL'S OFFICE, ADJUTANT GENERAL, AMERICAN ARMY, 1898

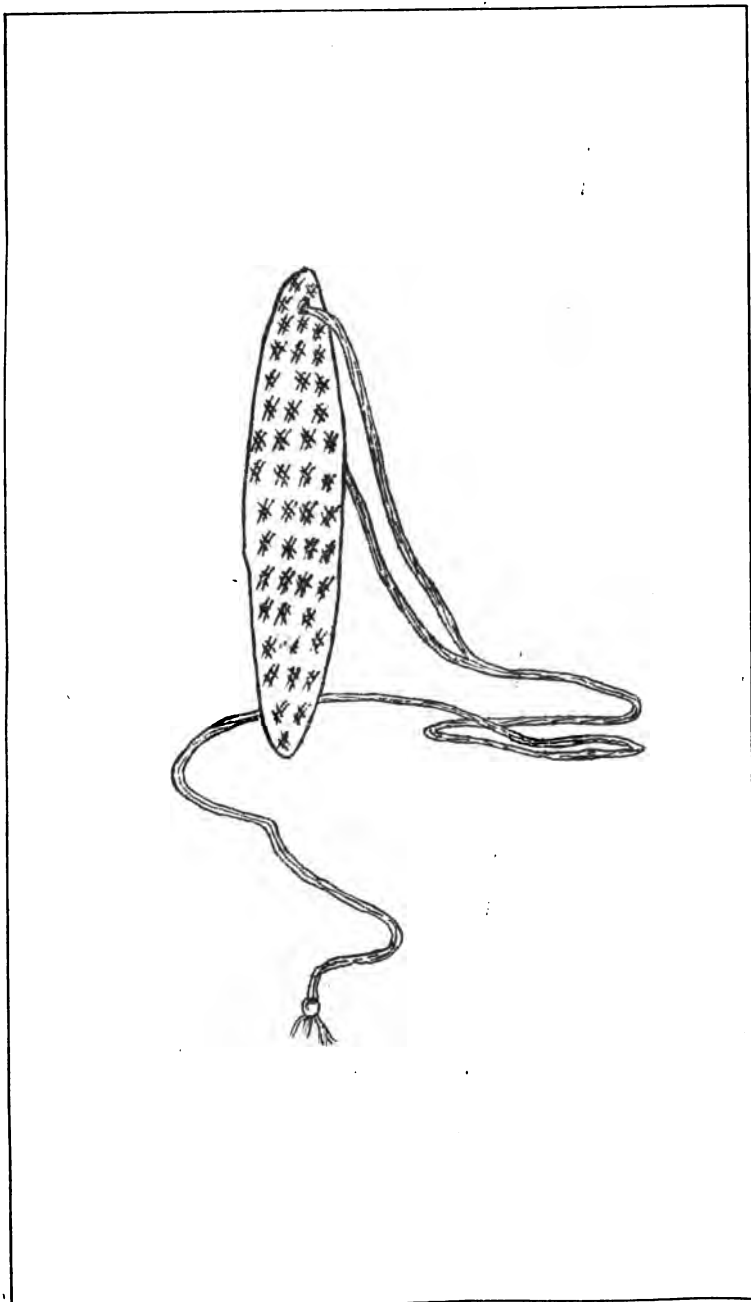


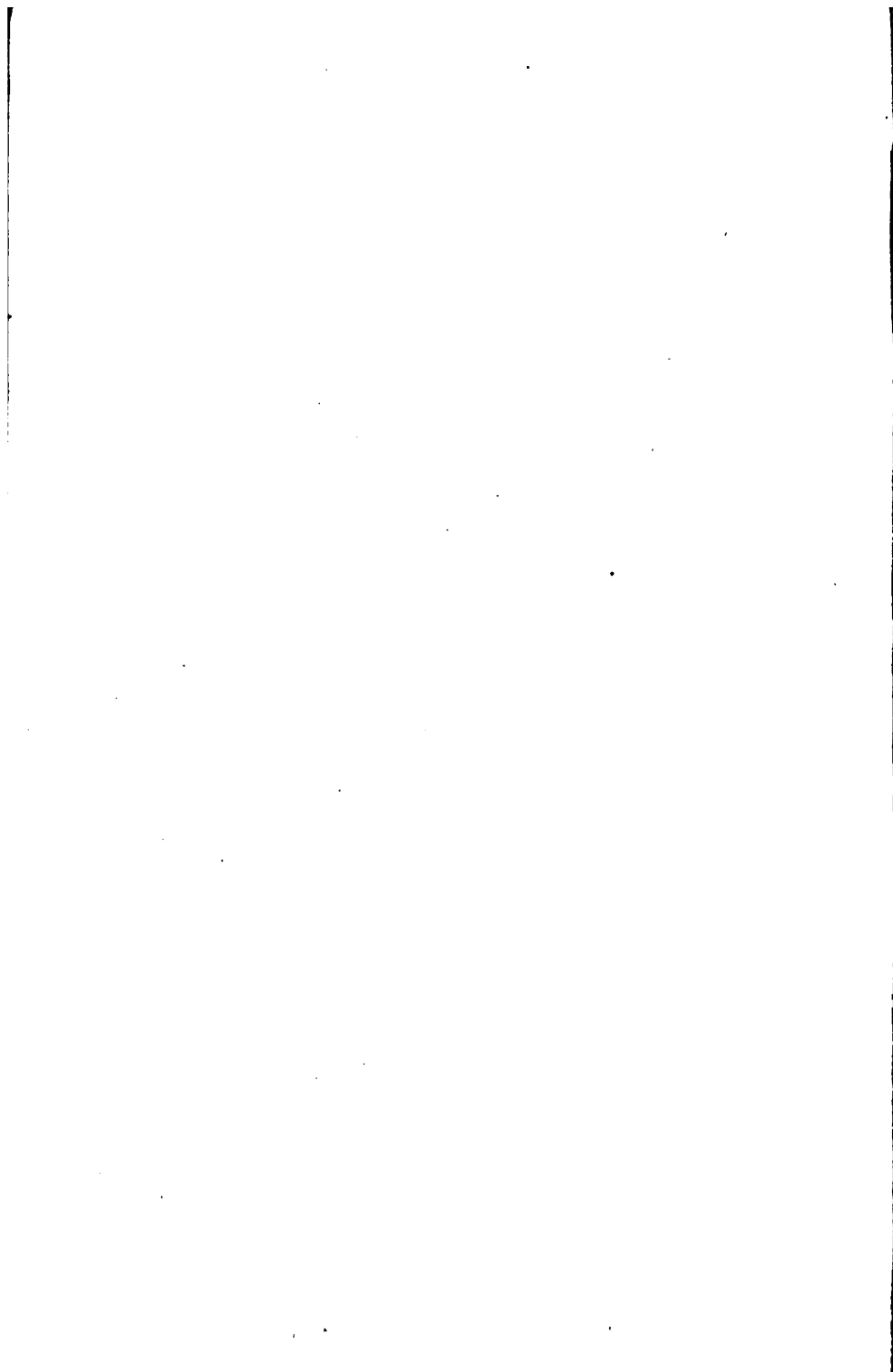


SURVEYOR GENERAL'S OFFICE, ADLARD, AMUUGHAN, PHOTOGRAPHED



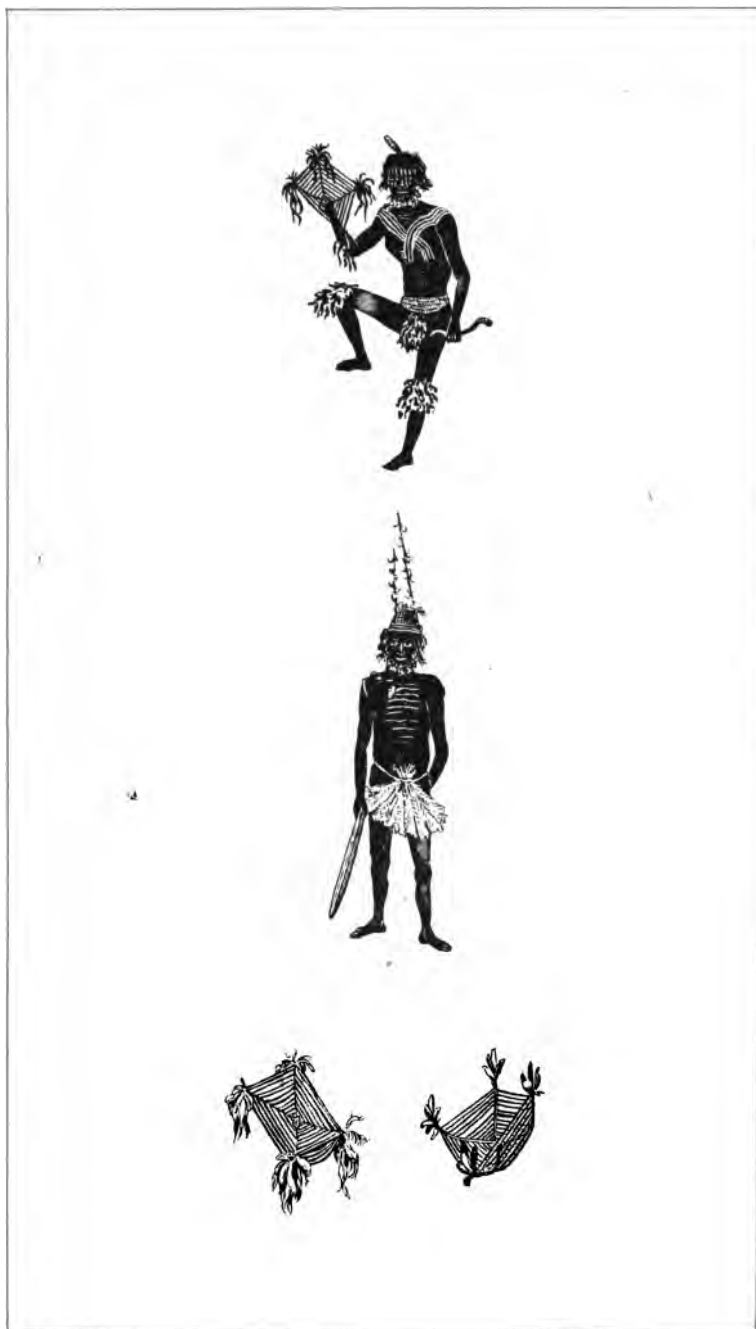
Plate 74.











In the Ulladulla district, after one of these ceremonial meetings, the blacks left hanging to the surrounding trees numerous small bundles of sticks tightly bound with wild vines. Near Lake Bonney, on the south-eastern coast, the natives had a dance called *Pedlku*, in which a number of men stood in a row and beat time with their feet to the singing of the women, having their arms extended and shaking their fingers rapidly.

The *Kuri* dancers wore the *Palyertatta* on their heads, which is made of two sticks bound together crosswise with opossum-fur spun into string and ornamented at the extremities with feathers of the wild fowl.* The two leaders of the dance carried a long spear, to which a bunch of feathers is attached, spun human hair being wound round the whole length. Gum leaves were attached just above the knees, the leaves making a crackling sound, the men being all painted with pipeclay. (Plates 75a and 75b.)

The dances of the *Parnkalla* tribe, near Port Lincoln, consisted chiefly in jumping from side to side, each man holding a belt of human hair in his hands for the purpose of balancing his body. Women also joined in this dance, sitting sometimes in a circle, with the exception of one, who stood in the centre. A man then advanced towards her, jumping from side to side; the woman also commencing to jump in a similar manner, and they both then danced back to the groups. This was repeated in turn by the others. The *Palti* was practised over nearly the whole of the Australian continent, the performers being painted almost like skeletons. They arranged themselves in rows one behind the other, and went through a variety of savage gestures, accompanied by a loud singing noise, giving a terrific shout at the end of each figure of the dance. Women beat time on opossum skins tightly rolled up with two sticks, producing a drum-like sound. In one figure the dancers occasionally rushed towards the women, beating together their spears or waddies over their heads, and then retired. This was repeated several times.

Having given an illustration of the ceremonial dance of the New South Wales tribe, we will now allude to one which was in practice amongst the natives of the Rufus and Lake Victoria, which very closely represented the actions of the kangaroo, and it was surprising to witness the perfect time kept through all the figures and the admirable manner in which the varied actions of the dancers accorded with the music. There was no confusion, irregularity, or mistake; each person was conversant with his part, and all exhibiting a degree of elasticity and gracefulness in

* Angas, South Australia Illustrated.

their movements, which in some of the figures was very striking and beautiful.

In one of the dances indulged in by the native tribes west of Port Lincoln the actors wear a covering or apron of emu feathers. Fixed in the hair of the head are two sticks which have been shaved without detaching the shavings, and these have been curled by the fingers. In the extreme tip of the beard is fastened a little white down from the breast of the white cockatoo, and in the right hand is held the wommerah, or throwing-stick. A bunch of emu or pelican feathers is worn as a decoration on the head; and one part of the figure, where the whole of the dancers successively drop down from a standing to a crouching posture and then hop off in this position with outstretched arms and legs, was excellently executed.*

The Rufus natives had a dance where the men and women were all painted, a group of women beating time with short sticks. A double row of natives, each with a stick thrust behind him underneath his arm, kept moving and shaking his legs alternately, each and all in uniform time, just as the measure of the tune was fast or slow. They would then remove the sticks, which they now held before them, swaying their bodies from side to side, all in unison with the time of the song, and imitating the manner in which they paddled their bark canoes. The usual Murray dance includes from fifty to 100 men, having their bodies and limbs painted with white stripes with pipeclay, who, with their spears and wommerahs in their hands, perform a dance very similar to the *Palti* dance, except that they do not make the loud *ishing* noise of the latter, the women beating time upon their opossum-skin rugs.

Mr. E. J. Eyre, in his "Discoveries in Central Australia," Vol. II., page 236, describes a dance which took place at Moorunde, on the River Murray, in 1844, as taking place in the daytime, on the occasion of a large number of distant natives coming to that place; the visitors were the performers.

"The Moorunde natives seated themselves on the brow of a sand-bank, the strangers, consisting of two tribes, being down in a hollow a short way off among the bushes. When ready, they advanced in a line towards the others, dancing and singing, being painted and decorated as usual, some having tufts of feathers on their heads like cockades, and others carrying them in their hands tied to short sticks. Nearly all the males carried bunches of green boughs, which they waved and shook to the time of the song. The women were also painted, and danced in a line with the men, those of each tribe stationing themselves at opposite ends of the line. Dancing

* Eyre's Expeditions into Central Australia.

for a while, they retired again towards the hollow, and, after a short interval, advanced as before, but with a person in the centre carrying a curious rude-looking figure raised up in the air. This singular object consisted of a large bundle of grass and reeds bound together, enveloped in a kangaroo skin with the flesh side outwards, and painted all over in small white circles. From the top of this projected a thin stick with a large tuft of feathers at the end to represent the head, and sticks were stuck out laterally from the sides for arms, terminating in tufts of feathers, stained red, to represent hands. From the front a small stick about 6in. long was projected, ending with a thick knob formed of grass, around which a piece of old cloth was tied, painted white. This figure was about 8ft. long, and was evidently intended to symbolise a man. It was kept in its elevated position by the person who carried it, and who advanced and retired with the movements of the dancers. The position of the latter was alternately erect and crouching whilst they sang and beat time with the green boughs. Sometimes they stretched out their right arms simultaneously, and at others their left, apparently for the purpose of marking the time at particular parts of the song. After dancing for a while in this way, they again retired to the hollow, when for a few moments there was a pause, after which they again advanced as before, but without the image. In the place of this two standards were exhibited, made of poles about 12ft. long, and borne by two persons. These were perfectly straight, and for the first 8ft. free from boughs; above this nine branches were left upon each pole, having at their ends each a bunch of feathers of the hawk or owl. On the top of one of the standards was a bunch of emu feathers. The branches were stripped of all their smaller twigs and leaves and of their bark, and were painted white, and wound round with the white down of the black swan twisted into a rope. This also extended for a considerable distance down the pole, below the undermost branch. Having again retired to the hollow, they remained there a few minutes, and then advanced for the third time. On this occasion, however, instead of the image or standards, they all carried their spears. After dancing with these for some time, they went forward towards the Moorunde natives, who sprang to their feet, and, seizing their weapons, speared two or three of the strangers in the shoulder, and all was over."

CORROBBOREES.

The corroboree was not, as some suppose, a sacred ceremony. It really was a sort of play, embracing a variety of subjects, the

movements of many animals being imitated, such as the emu kangaroo, or wild dog, which were particularly good and amusing. The blacks were very observant, and were great mimics. They were very perfect in the performance, and exhibited a skill and dexterity only to be gained by long practice. From the day an infant was able to stand and walk alone its education in the movements of the corroboree began.

The dance—or really dramatic recital—was almost always held on a clear night on or about the full moon. The place chosen for it was a clear space in the forest or scrub, from which every stick and stone had been carefully removed. On the outskirts of this bare patch fires were lit, the glare from which brought out in strong relief against the dark background of the forest trees or scrub the forms of the dancers, and illumined the faces of the musicians (if they can be called so) as well as those of the eager and expectant watchers of the performance. The women sat on the ground with their legs crossed, having in front of them opossum rugs tightly rolled up with the skin side outwards, and the men taking part in the dramatic scene held a stick in each hand. All being in their places, the director, generally an old man, appeared on the far side opposite the orchestra, towards whom he stepped with a slow and dignified pace. Arriving at the fires he gave a signal which started the orchestra beating their skins, while they sang a monotonous chant, sometimes rising to a shrill tone, and gradually falling to a low sobbing moan. The actors moved from the gloom of the trees out into the open clearing, striking in unison their sticks, which emit a peculiar and in some degree a musical sound. As they move onwards towards the fires the ruddy light falls on them, lending an unearthly and wild appearance to the painted actors, and thus the prelude to the play begins.

The men would represent a herd of cattle grazing on the plains. This scene was much aided by the manner in which they were attired and painted. Some of the head-dresses represented horns, and all had tails attached to their waist-bands. Several would lie down and pretend to chew the cud; others would scratch their bodies with their toes or horns, or one would lick another as they had seen a cow do to its calf, while others again would rub their heads together and butt and snort after the fashion of cattle at play. Whilst this scene was proceeding another party of actors would represent a hunting party, armed with spears and other weapons, creeping silently and slowly towards the herd, keeping themselves on the windward side, so that the cattle might not take alarm by scenting them. When they had approached within spearing

distance the hunters would simultaneously throw their spears, two of the herd being struck down. The spectators watched this performance with critical eyes, and if it met with their approval they gave expression to it by loud and prolonged shouts. The cattle, taking the alarm, now rush together in a mob, panic-stricken, bellowing and roaring, but searching for a way of escape, for as yet they did not know from what side the danger came. More spears were thrown, and the hunters shouted wildly, increasing the uproar. At last the cattle broke away, and disappeared in the darkness of the forest. The hunters now surrounded the two dead bullocks, and the operations of skinning, cutting up, and carrying away the meat were portrayed in true style. Whilst the hunters were removing the carcasses of the bullocks a sound came from the forest like the galloping of many horses, and a number of natives would rush into the clearing, acting the part of white stockriders to perfection. Their hair had been whitened, to represent as near as possible the hats of the stockriders. The bodies of some of them had been painted red, others white, and others again blue, as though they wore shirts of these colors. Other parts of their bodies had also been painted, to represent clothing worn by the white men. Firing was imitated; some of the hunters fell as if shot or wounded; some then show fight, and a short sharp tussle would take place. The audience would be laboring under intense excitement, clattering their sticks, the women beating their opossum-skin drums; the song would wax louder and louder, the time being quickened to keep pace with the inflamed passions of the actors, and it was as much as the spectators could do to restrain themselves from rushing in and joining in the mimic fight. Suddenly, however, in the midst of the uproar, at a signal given by the leader, the music would cease as if by magic, the fight would abruptly terminate, and all the performers came forward to receive the applause of their friends.

No descriptive account can do justice to the various exciting scenes presented by the natives when dancing the corroboree. They should be seen to be appreciated. (One illustration is shown in Frontispiece.)

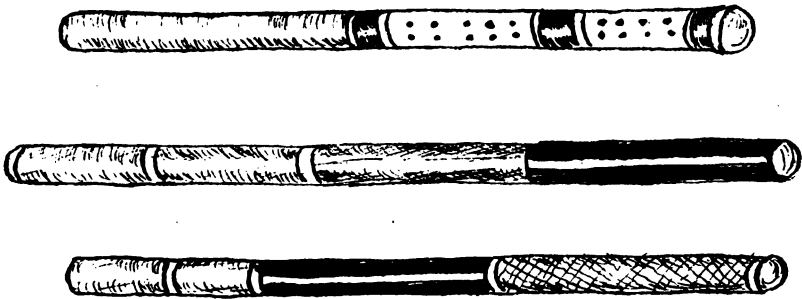
About fifty miles up the South Alligator river, at the north-west corner of the continent, is a native camp of large dimensions; the huts are round, are of better make than usual, and are made of bent limbs of trees, covered with bark, having a covering of stiff clay over all, which render them impervious to the rain: they are also domed and are a little over 6ft. in diameter. On the dancing or ceremonial ground close to the huts are representations of a man in the act of throwing a spear at an animal shaped like a buffalo.

This dancing ground is of a circular form about 12ft. in diameter, with a smaller circle in the centre, like the nave of a wheel, and radiating from it towards the outer circle are rays like spokes. The outer portion of this wheel-like area is 18in. in diameter. These spaces or grounds are made on the black alluvial soil clear of every particle of grass or herbage, and are beaten by the feet into a hard compact surface upon which the weather appears to have little or no effect; round this circle the natives assemble and perform their tribal dances or corroborees. Similar dancing grounds of wheel-like formation exist in different parts of the continent; one is to be seen on the rocks of Depuch Island.

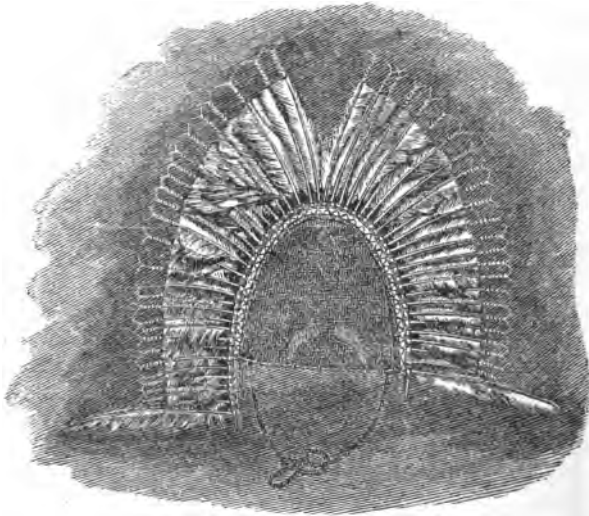
All the native tribes keep exceedingly correct time; and if dancing consists in easy and gracefully varied positions of the body, the civilised professors of that charming art might profit by the skill of the Australian aborigine. Wilson, in his interesting "Voyage Round the World," describes a dance he saw at Albany, as follows:—"They began by marching slowly in a circle round the fire, gradually accelerating their pace; they then, in turns, placed their spears at the feet of one of their party who stood outside the ring, when they danced with might and main until nearly exhausted, when they retired to supper, quite elated that their amusements had apparently given us satisfaction." Dr. Davis joined in the dance, and although he could "keep time" correctly enough in a civilised ball-room, he fell very far short on this occasion; so they, in very polite terms, requested that he would not fatigue himself, but stand and look at them.

The natives of Alice Springs after the rite of circumcision with all its attendant ceremonials has been completed close the whole proceedings by a very singular dance. The adult males provide themselves with two saplings each, leaving the young branches and tender green leaves remaining at the top. One of these saplings is tied to the right, the other to the left leg, below the knees. They then (all the males so decorated being arranged in open line) commence to sing and bend themselves sideways and forwards with uniform motion until their bodies are nearly hidden by the protruding boughs and leaves. To one unacquainted with the significance of this dance it appears as if the simultaneous movements of their bodies and the foliage were intended to irritate the female members of the tribe, for after a time the lubras suddenly rise, and, with a general scream of rage, rush at the males at the precise moment when their bodies are bent forwards and hid behind the protruding foliage, and, with frantic rage, seize upon and tear off the boughs and leaves, and so this ceremonial dance concludes.

1



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CHAPTER XIII.

MUSICAL INSTRUMENTS.

The natives have not developed much inventive genius in the manufacture of musical instruments. Their principal attainment in the science or art of music has been the cultivation of the vocal powers. There is one chant for the dead which is pensive and melancholy in the extreme. It rises and falls on the still night air, breaking the silence of the otherwise sleeping camp, and exerting a most depressing effect upon the white settlers thereabouts. In their sacred dances and corroborees the voice bears a prominent part. The lubras generally, at the corroborees, chant the song descriptive of the nature of the dance, at the same time beating with their right hands on the opossum cloaks which are tightly rolled up in front of them, and which resound with drum-like report, keeping the most perfect time. The leader or conductor, generally one of the oldest and most noted men of the tribe, chants at the top of his voice, striking the corroboree sticks, to which the dancers respond simultaneously, with extraordinary regularity of stroke and time, as if they were all but one perfect machine.

The natives of the Northern Territory have a primitive sort of trumpet, which they use in the Bora and other ceremonies. The sketches (Plate 76, Fig. 1) give a good idea of this musical instrument. It is a short piece of bamboo, thinned on the inside by some native process, and blown from the mouth. It is about 2ft. or 2ft. 6in. in length. Captain Stokes records that when visiting Port Essington he saw a somewhat similar instrument, blown in the same way. It gives out a slight droning sound, almost like the bagpipes. The upper one is of wood, the heart having been eaten out by the white ants; it is 3ft. 8in. long and 2in. in diameter throughout. The mouthpiece, or the mouth end, is, though darkened by constant use from the hands and lips, of the natural color of the wood, the other portions being painted red and white, and the whitened parts relieved by red spots. The second and third are of reed or bamboo, one of them being 4ft. 3in. long and 1½in. in diameter; and the other 4ft. long and 1½in. in diameter. They are painted in divisions, with red, black, and white lines on them as shown, except at the outer end, where the bamboo shows. These instruments have but a remote relationship to the instrument known as

a trumpet; and there being neither finger holes or keys the notes produced were of a sonorous droning kind. One in my possession measures 4ft. 5in. in length. The diameter of the mouthpiece is $1\frac{1}{4}$ in., and that of the outer end is $1\frac{3}{4}$ in.; and it is ornamented with circular divisions at stated intervals on the whole length, filled with incisions made with some sharp instrument. Where the bamboo has cracked, the openings have been filled with gum.

Wilson, in his "Voyage Round the World," on page 87, says:—"In the evening a large fire was kindled just before the fort (in Raffles Bay), and the natives danced round it with great vigor and spirit to the music produced by one of their party from a long hollow tube. The native name of this instrument was *Ebero*."

Captain Keppel, also, on his visit to Port Essington in H.M. ship *Mæander*, speaking of the fondness of the natives for dancing and singing, writes:—"The bodies of the dancers are grotesquely, but very skilfully, painted with different colored clays. They are wonderful mimics, and are fond of representing in their dances the habits of various animals—the kangaroo, native companion, wild fowl, &c. Their movements are graceful and complicated, sometimes indelicate. The music consists of a bamboo tube, about a yard long, through which a monotonous sound is transmitted by the performer's breath, the beating of one stick against another, the clapping of hands, also the beating of the open hand against the hollow parts of the limbs and body." Some of them admired our band, but I believe they preferred their bamboo flute.*

PERSONAL ADORNMENT.

The ornaments formerly in use by the aborigines were many, but of the most primitive construction. Notwithstanding the numerous varieties of beautiful native flowers, it has not been observed that any use has been made of their decorative qualities. Even the tribes located in those portions of the continent which yield profusely the rich floral gems of the *Clanthus Dampieri* (commonly known as the Sturt pea) have not apparently recognised the adaptability of its pendant clusters of bright flowers to the use of personal adornment. They almost always used the colored feathers of the cockatoo, native pheasants, pelicans, or parrots as ornaments for the hair; they also made short lengths of small reeds, which, being strung on twine, hung in clusters from the hair, and, besides this, ornaments of kangaroo hteet, which they so fixed in the hair that the teeth hung down

* A Visit to the Indian Archipelago, Vol. II., 1853.

upon the temples and brow, where their whiteness was in strong contrast with the dark skin of the wearer.

They do not appear to have had their ears pierced, or to have at any time worn earrings, but I have seen the men, and the women also, wearing armlets of opossum fur spun into string, and also of minute shells, both white and colored. Nets made in long strips were of common wear round the head, in some cases being made exactly like those which were at one time worn by European children to contain the hair. As opportunity served these nets were colored by vegetable or mineral pigments, according to the taste or vanity of the wearer.

HEAD-DRESS.

The head-dress depicted by Sir George Grey as worn by one of the painted figures in the caves on the north-west of the continent was made of feathers fixed on a frame-work of sticks, and so constructed as to cause the feathers to stand upright and form a frill round the head. This form of head-dress was in use by the men at Cape York in one of their festive dances. The feathers were those of the cockatoo, notched at the ends (except the lower one at each side), the quills turned over the curved stick, which were very neatly tied with twine. The inner arch was strengthened at the back by sticks and the cloth which covered them was exactly like canvas. The two spaces which appeared just above the eyes when the head-dress was worn had a border of thick twine, and covered with red ochre, as was also the edge of the inner circle. The whole was most ingeniously constructed; the white and yellow of the feathers contrasted with the red paint would have a hideous appearance by the light of the corroboree fires.* Similar head-dresses are in use by the natives of New Guinea living on the Fly river. These are composed of the wing and tail feathers of the white cockatoo. Head-bands were sometimes made of strong cobwebs. (Plate 76, Fig. 2.)

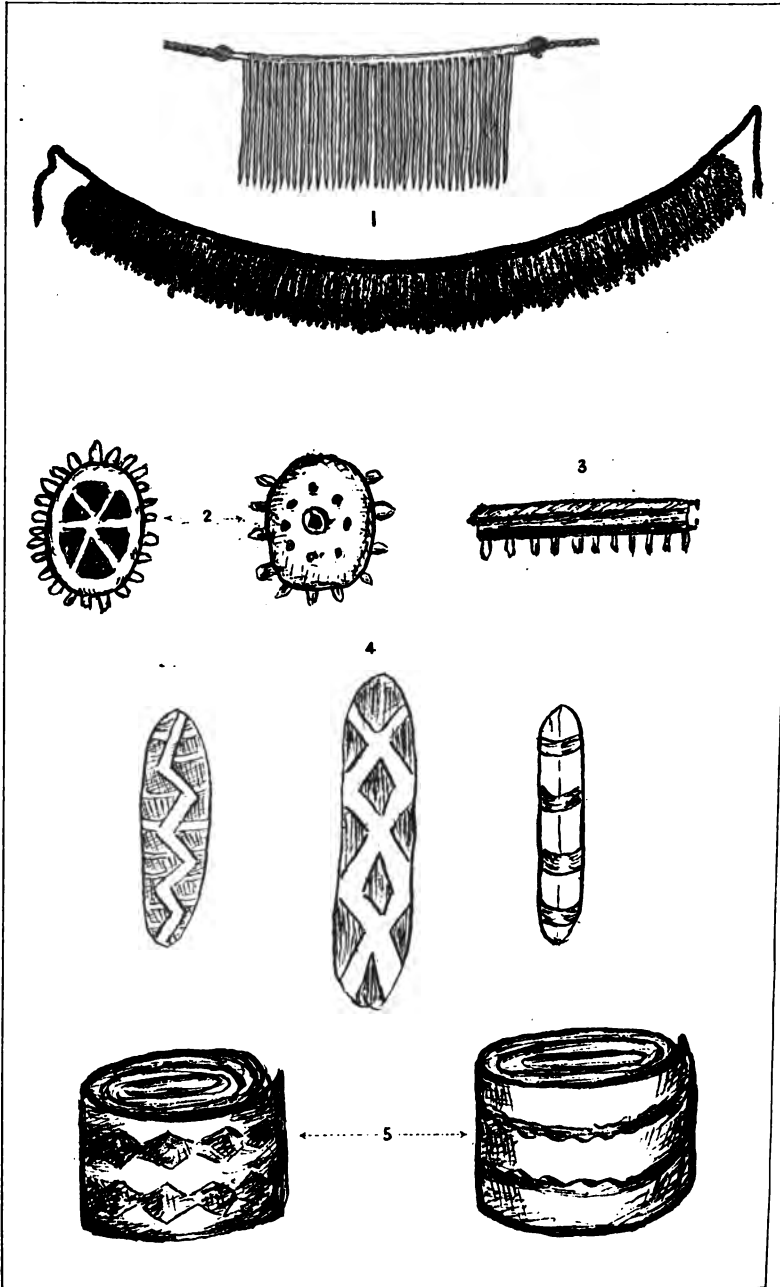
The Port Lincoln tribes would catch birds, and from the white down they made a kind of chaplet, which looked very much like the cap of an old woman, like those usually worn by the working man's wife some fifty or sixty years ago. The old men at Cooper's Creek used to wear a head-dress of feathers, but in widely different portions of the continent they wore their hair in the form known as a chignon, with the white downy feathers of the cockatoo fixed here and there in the coils. In the Tatiara country the men would fix the crest of a cockatoo in the

* The Aborigines of Australia.

hair above the forehead, and sometimes a wild dog's tail or a bunch of pelicans' feathers was tied to the hair at the back of the head, and worn as a sort of pendant. In the Gippsland country the natives would wear the tips of the ears of the native bear over their own ears, with the points fronting to the temples.

Necklaces were almost always worn, and were made of shells where the tribe had a littoral country. Sometimes they were made of a pure white shell, very small, and in form like the mussel; in other places, away from the sea or large rivers, the necklaces would be fashioned out of small lengths of reeds, strung on opossum-fur twine. Some very beautiful ones were also made out of the incisor teeth of the kangaroo. The native would dress a long strip of kangaroo skin with special care, making it soft and pliant like a kid glove; to this he would attach the teeth, first having fastened each tooth separately to a small piece of soft skin by the tail sinews of the animal. These were fixed to the long strip by other sinews passed through small holes made by the sharp point of the bone needle. The skin was painted red, and the foil of the red and white presented a not unpleasing contrast. Necklaces were also made of reed, each piece about half to three-quarters of an inch in length, and were strung on twine made of fibre or the hair of a human being or opossum, and which, when extended, would measure from 20ft. to 30ft. in length. Being very light and elegant, this necklace brought out the natural beauty of the young girls, by whom it was generally worn. On the Lower Murray I saw a necklace made of very fine reeds, with a curious pendant, greatly prized by the owner. The string was made of very fine fibre, and about 18ft. in length, making, as the wearer chose, several circlets round the neck. On the twine were strung very short pieces of fine thin reed, colored alternately white and red; the pendant being composed also of twine, on which were fastened downy feathers of the goose, shells, the mandible of a duck, the upper mandible of a black swan, and tufts of human hair. Necklaces were also made of red berries and eagles' claws, and had a very pleasing effect. Others were made from the small pipe-like, but transparent, shells of the *Dentalium* by the natives of Cygnet Bay, Western Australia, and may be seen in the Adelaide Museum.

Nose ornaments were not commonly worn, although sometimes the bucks of the tribe would glory in their possession. The septum of the nose having been pierced, the native would wear a piece of bone, bamboo, reed, or the stalk of some grass or the flower-tuft of a flag. If the wearer used bone it was generally curved, and about 6in. in length. It was in use by both sexes, and esteemed



by the wearer as bidding fair to win the favors of the opposite sex. Armlets, or bands worn round the arm, were fashioned out of the skin of the small flying squirrel or the native cat, and were supposed to aid and strengthen the arm. Bracelets of the fur of these small animals, and also of dogs' tails, were generally worn, which were sometimes adorned with a setting of the teeth of the smaller marsupials or of very fine shells.

GIRDLES, ETC.

Girdles were everywhere in use. These were manufactured out of the skin of some animal, and tied round the body so as to form a covering both in front and behind. Young girls wore round the loins a skirt or girdle composed of opossum fur. Sometimes these aprons were made of emu feathers and sinews, and would fall half way to the knee. This apron was always thrown on one side after the birth of the first child. Adult females used to wear a girdle of emu feathers when dancing. The shafts of the feathers were bound and secured by fine sinews to a cord made either of vegetable fibre or the hair or fur of some animal. (Plate 77, Fig. 1.)

The men wore girdles made of dog's skin, with the hair outside, or a band of network, in which they would carry the boomerang, tomahawk, or other weapon. The belt or girdle, if of skin, would be made pliant and soft, adapting itself to every movement of the loins; if of network it would be uniform in thickness and the meshes all of the same size, strong and elastic throughout. In workmanship it would bear favorable comparison with anything of a similar kind produced by a European. I have seen string made from the human hair between 200yds. and 300yds. in length, which was wound round the loins and used as a girdle; it came from the Finke river. The tribes about the Leichardt river wore two rings of opossum hair, with pendants on each leg, one above the knee and the other on the calf.

The Western Australian natives make ornaments of the pearl shells, grinding or rubbing the outer or concave side of the shell until the pearl lining is thoroughly shown. Figures and lines are drawn in black or red pigment, and a small hole being perforated at the upper end, a string of opossum fur is passed through, and the pendant ornament thus lies upon the breast like the star or decoration of the order of knighthood in European countries. Several of these ornaments are to be seen in the Adelaide Museum.

The men of the Island Kawai, at the mouth of the Fly river, decorate themselves with pearl shells, which they wear round the

neck, and below that a perfect half-shell hanging between the breasts.

The same natives also manufacture ornaments nearly approaching in form to stars. (See Plate 77, Fig. 2.) The material is either fur from the kangaroo or opossum massed together with some tenacious gum. On the edge are fixed teeth of the kangaroo, also firmly embedded in a rim of grasstree gum. The star is painted red, with white lines representing crosses. The projecting teeth have been polished, and are quite white, giving a very pleasing effect to the ornament, which is worn on the breast, hanging from a string round the neck. The other is of similar material and form, except that it has a white centre, with red dots on it, and the teeth projecting in a similar manner. The ornament on the right represents portion of a head-band, made of fur and teeth of the kangaroo. (Fig. 3.)

Large and small mussel shells and portions of nautilus shells are also used as aids to adornment of the person, and are generally hung in pairs from a necklace falling in the centre of the breast. The shells are well polished and show the opalescence freely, and are much prized by the natives, as they are light and beautiful. Now and then they are attached to the beard by string and gum. The beard is also adorned with down from birds.

The natives of the Finke river and neighborhood have utilised the shell of the freshwater turtle for purposes of decoration, but in what ceremony it is used and for what object the natives refuse to explain. It is certain, however, that when shown to the men of the tribe located on that river they exhibited much fear and alarm for the consequence. The shells were painted red, with white dots on the outer side, the rest of the surface being black.

In the north-western part of the continent the men wear their hair in the form of the chignon, as at Cooper's Creek, and in order to enhance their attractions with the women they have hairpins, or pieces of wood carved, painted and showy, which they push through the knot of hair at the back of the head and also through the hair in front of the knot. These pins are from 6in. to 1ft. in length and about 2in. in width, the thickness averaging about $\frac{1}{2}$ in.

Specimens of hairpins are in the National Museum in Adelaide. In this museum are also some waist belts of a kind I have never seen before, made of thin strips of wood. They are in width 4in. to 6in. and about 4ft. to 5ft. in length, painted white with red ornamentations on them, and are manufactured by the tribes in the Northern Territory of South Australia. (Plate 77, Fig. 4.)

Fig. 5 represents belts obtained from the Northern Territory. If they were ever worn they must have been exceedingly inconvenient on account of their non-pliant character, and must have impeded the wearer in any movement necessitating a stooping posture. Near the mouth of the Greenough, visited by Captain Stokes in his survey boat, the natives gave him in exchange for some handkerchiefs a hunger belt, composed of wallaby skins. Their hair was knotted on the crown of the head, like the natives of King's Sound.*

Mr. E. Giles, speaking of the tribe located on the Finke river, says two natives visited his camp in August, 1872, escorting a third who "was painted and feathered in the most alarming manner."†

Mr. Bradshaw, in the lecture he gave in 1891 at the Athenæum, relates how they were watched at one of their camps by the natives. He says, "Most of them were grotesquely painted with stripes of red and white, alternating with the black stripes of their natural hue. Two or three of them had imposing head-gears, made, I imagine, of the pliable bark of the papyrus tree. We noticed one man in particular, who had two huge appendages extending upwards, and obliquely outwards, from the top of his head, about 3ft. long; but whether they were made from the wings of a large bird or were pieces of bark we could not ascertain, as he kept in the background, far up the range. A few of the men were snow white from age on the head, but had their beards smeared red with ochre. Others graduated in proportional numbers, down to youths in their teens. I think all of them were more or less tattooed on their chests and arms. There were no women among them. When the packing was finished, and we were ready to move off, I took two men and rode up to where the more advanced parties of niggers were stationed, but they would not admit a nearer approach than 30yds., always receding if we came closer than that, and keeping up an incessant chatter all the while. They indicated themselves by the word 'Wooyammi,' and the locality where we were, the creek, and the direction of their camp by the name 'Marigui.' The latter word may have a common origin with 'marega,' which, according to Dampier and King, was the name applied to the coast opposite this region by the Malayan cruisers for more than 200 years."


The Yarra-hapinni tribe, on the Nambucca river, have a peculiar method of dressing the heads of their messengers or ambassadors in order to distinguish them. Their head-bands are colored with very pale yellow ochre, instead of the usual deep red, whilst their hair

* Captain Stokes' Voyages, 1841.

† Australia Twice Traversed.

is drawn up and crowned by high topknots of grass, resembling nodding plumes.

R. Dawson, in his work on Australia, thus describes the manner of dressing the hair by the natives of Port Stephens, on the eastern coast, a little north of the city of Newcastle, New South Wales:—
“ His long hair was turned up and bound about the head with opossum yarn, having a tuft of grass in the centre sufficiently long to be seen above the hair, so as to present at a short distance the appearance of a plume in the following shape.”



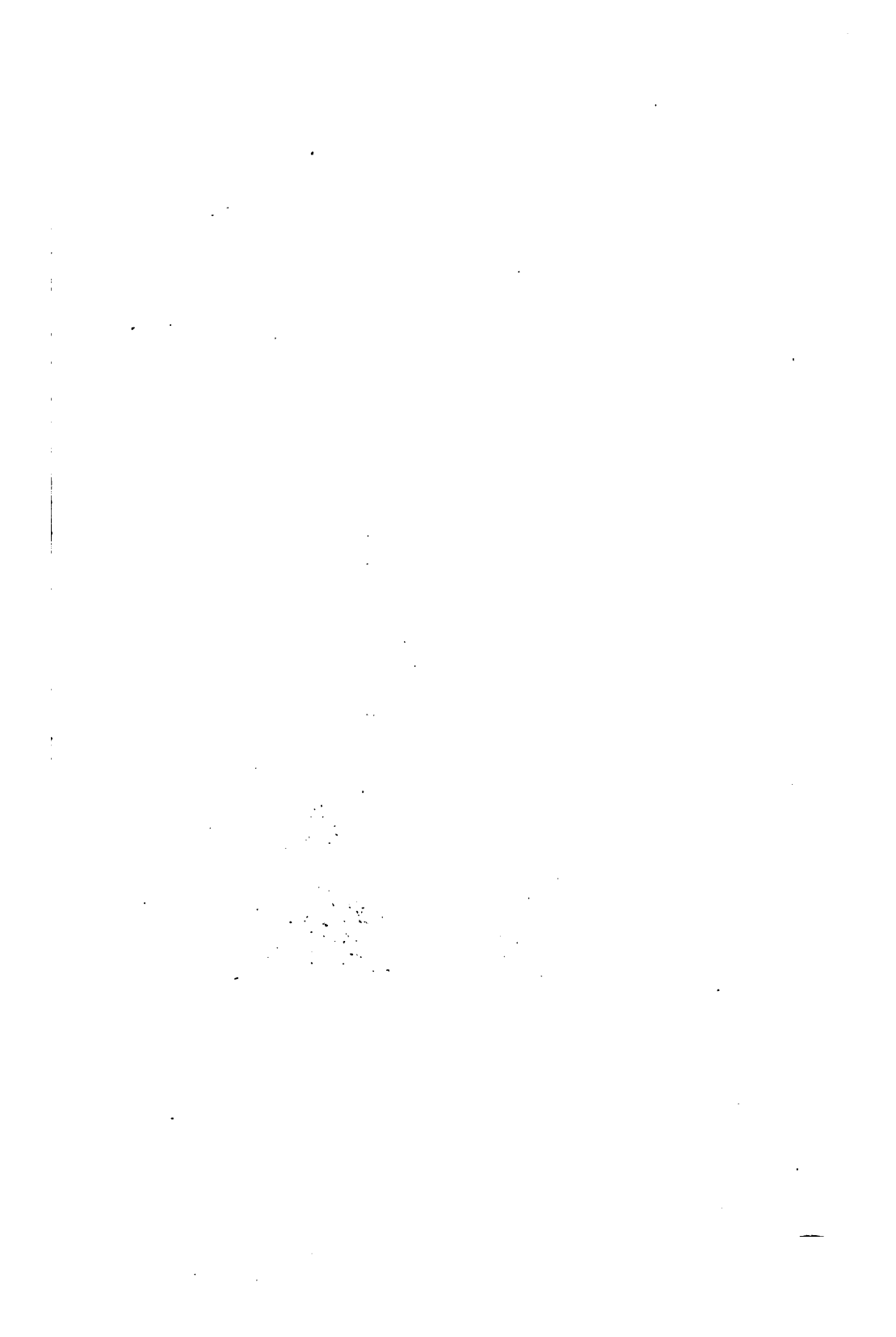


Plate 78.



SURVEYOR GENERAL'S OFFICE, ADELAIDE, A VAUGHAN. *Photo Librarian.*

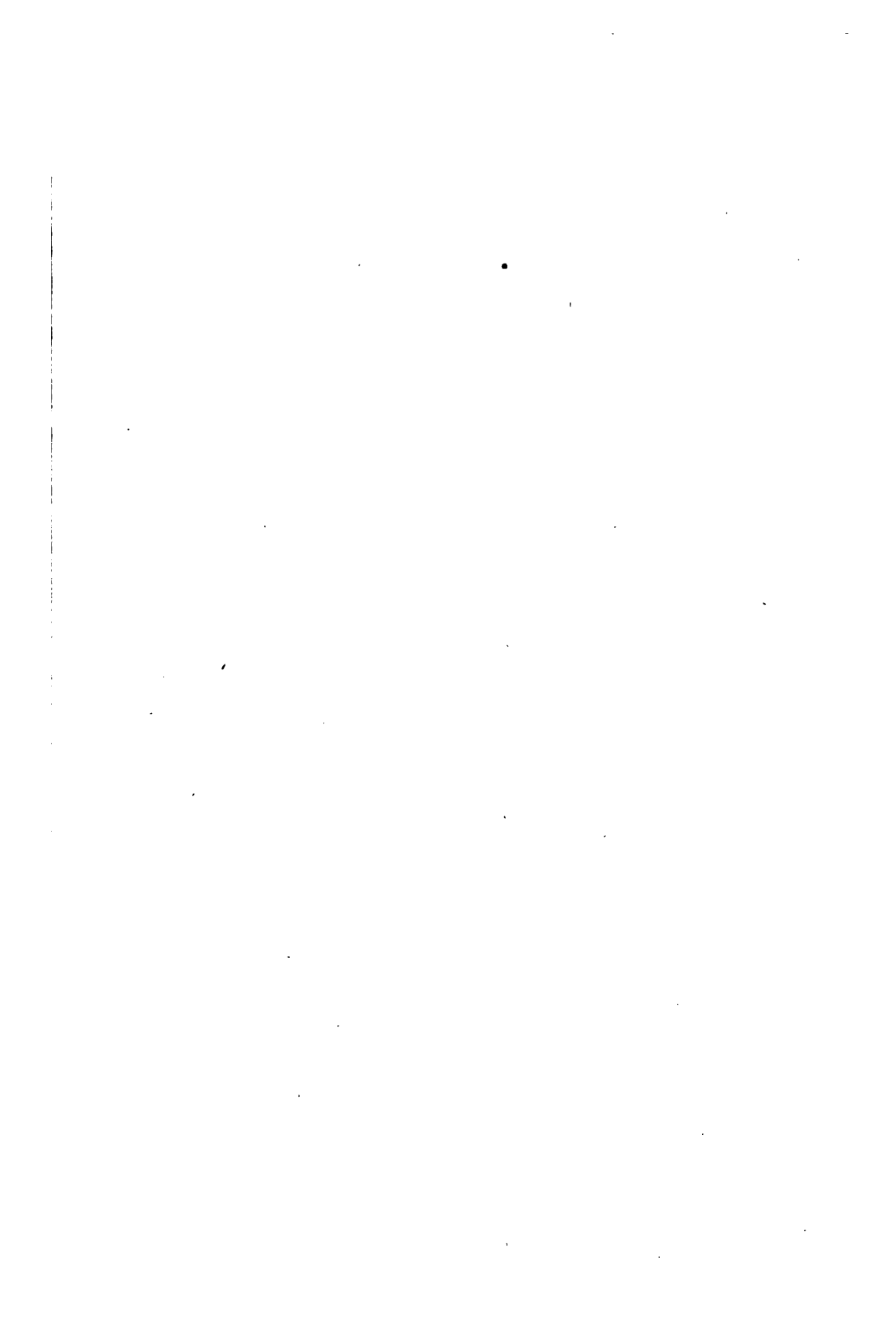
Plate 79.

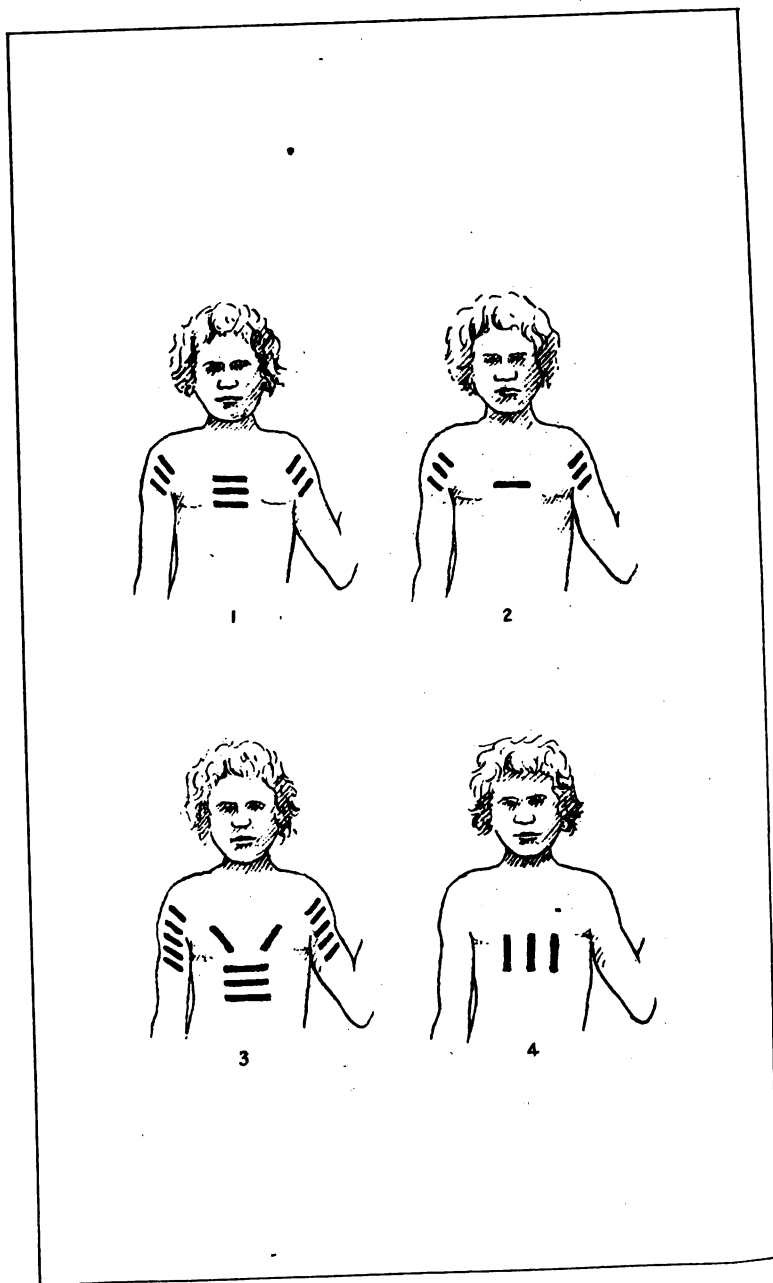


SURVEYOR GENERAL'S OFFICE, ADELAIDE, AUSTRALIA. Photo Libby & Co.

(2 OF 2)







SURVEYOR GENERAL'S OFFICE, ADELAIDE, A. VAUGHAN, Photo Lithographer.

CHAPTER XIV.

TATTOOING.

Each tribe has means of communication with its own members, and also with other and distant tribes, by means not only of the "message sticks," before alluded to, but also by marks made on trees and on the hard surface of the ground, conveying invitations to be present at some great festival, ceremony, or council meeting, or giving information on various subjects; and these the passing native can easily read and interpret.* The tattooing or cicatrices on their bodies could also be read by a strange native when encountered by another in the bush, so that he could name the tribe to which one or the other belonged. Notwithstanding, many writers on this subject have stated that these cuttings and raised cicatrices were arbitrary and simply formed at the will and from the design of the operator. Plates 78 to 80 furnish examples of various forms of tattooing taken from life, and which differ essentially from each other.

Plate 78—Aboriginal woman, Sydney, New South Wales.

Plate 79—Aboriginal woman, New South Wales.

Plate 80—Man of River Bogan tribe.

The system of tattooing was universal throughout the continent, but the mode of operation much varied. Some were cut with the flint knife or shell, whilst others are caused by the lighted stem of a burr which was placed on the part and allowed to burn into the skin.

In further proof of the statement that the tattooing marks can be read, I give here three examples from Howitt's work on the *Kamilaroi* and *Kurnai* taken from the tribe inhabiting the borders of South and West Australia to about twenty-five to thirty miles north of Eucla, at the Great Australian Bight. Their country extends about 140 miles east of Eucla, to about 160 miles west of that port.

PLATE 81.

Fig. 1—Budera (has three marks running from breast to breast, and three on the muscles of each arm).

Fig. 2—Kura (has one mark between the breasts, and three on the muscles of each arm).

Fig. 3—Buda (has five marks on the breast, and five horizontal marks on the arms).

* E. Giles.

Fig. 4—Wenung (has three perpendicular marks between the breasts).

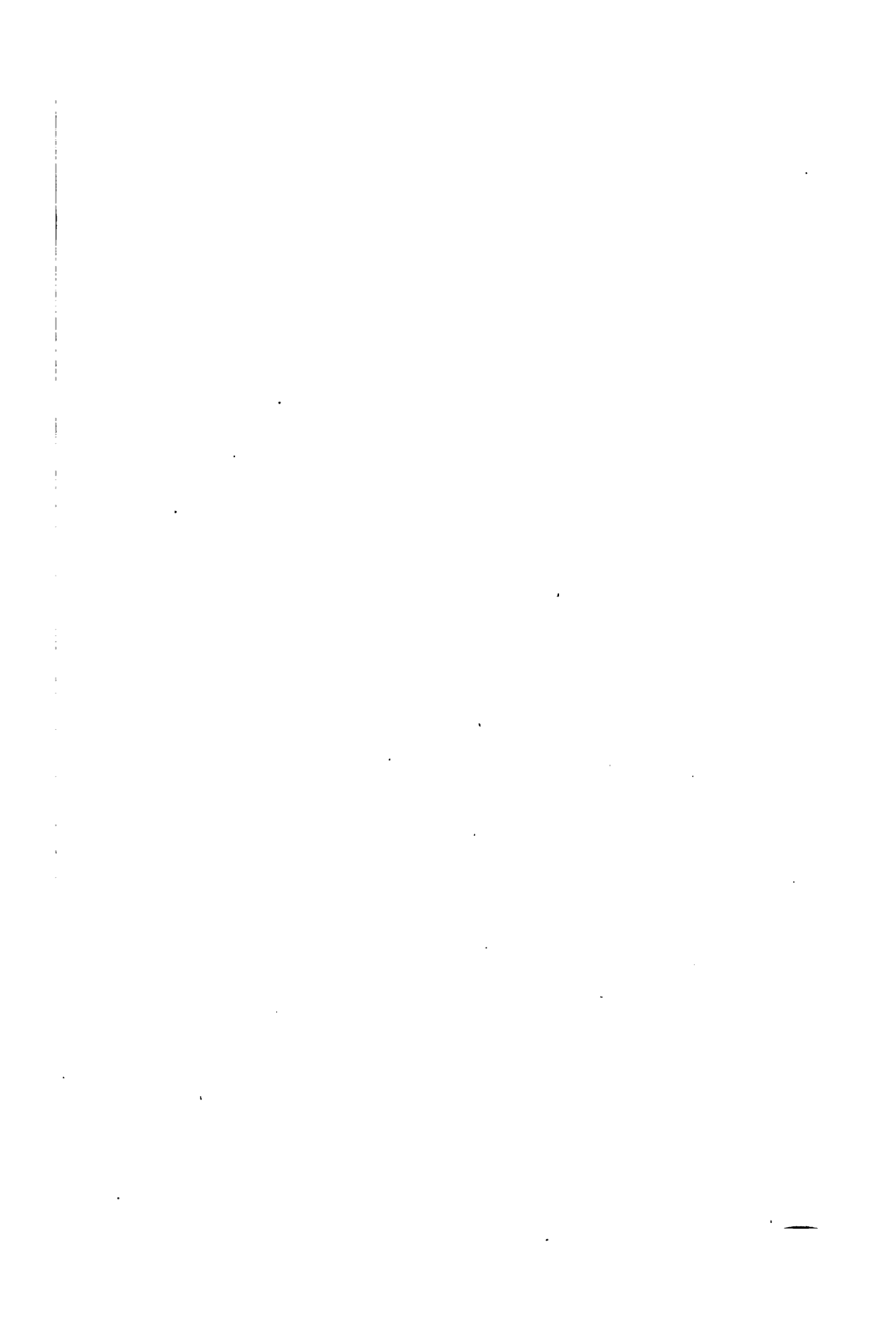
J. B. Jukes, in his interesting narrative of the voyage of *H.M.S. Fly*, Vol. I., page 159, gives an illustration of the design on the arm of a native of a little island north of Masseed, in Torres Straits, of an oval epaulet-like mark on the shoulders. He also mentions, at page 106, that the natives of Cape York "had a few horizontal scars on the breast and small epaulet-like scars on the shoulder," and in a footnote he says—"This is the first mention I found in my notebooks of that oval shoulder-mark which we afterwards found universal in Torres Straits, from Possession Isles to Darnley Island."

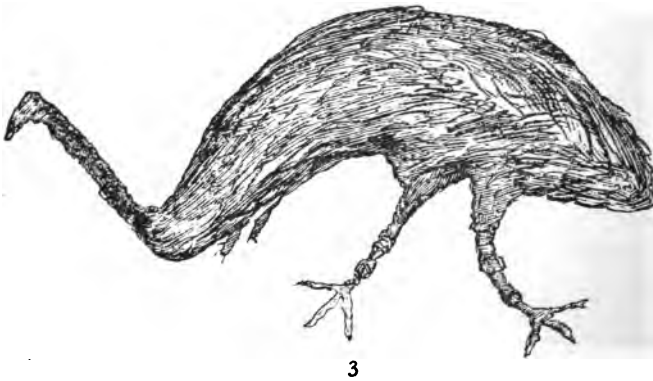
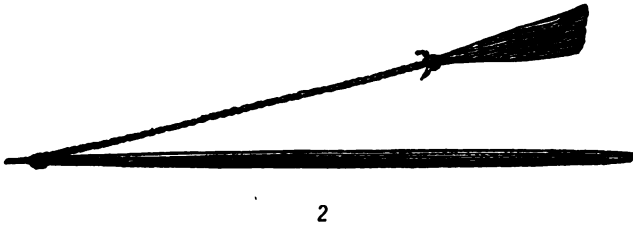
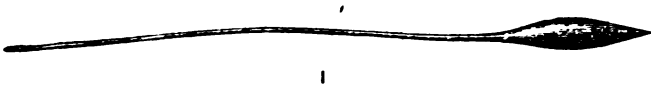
Guillemard, in the "Cruise of the *Marchesa*," page 394, shows the manner in which the natives of New Guinea, near Hatam, on the north coast, tattoo the right arm by raising round scars from the shoulder to the elbow.

In the Parnkalla and Nauo tribes the sponsor of the youth to be operated on opened a vein in his arm with a flint or shell knife, and completely covered the back and shoulders of the youth with blood. When it became sufficiently cohesive one of the other men marked the places for tattooing by removing with his thumb nail the congealed blood. The sponsor then made a deep incision on each side of the nape of the neck, and cut rows of gashes from the shoulders to the hips, about an inch apart; he then pulled the lips of the gashes wide apart with his fingers. During the whole ceremony they repeated as rapidly as possible, in a low voice, the following incantation :—

Kampa, marra, marra,
Kauo, marra, marra,
Pilbirri, marra, marra.







CHAPTER XV.

GAMES, MYTHS, ETC.

The aborigines, in all the tribes, had most amusing games, which they played when the duties of the camp had been carried out, some of these being much like those in vogue amongst the young people in European and other countries, especially the game of ball, in which both men and boys engaged. The ball was made of opossum skin, of good size and elastic, but firm and strong. The chief player commences by dropping it, and ere it reaches the ground gives it a strong kick with the instep of the right foot, throwing it high up in the air, the other players (like those engaged in football) making a rush to secure it. He who gets the ball kicks it again, and so the scramble goes on for an hour or two.

I have in my possession two balls made of granite, which by much use have become quite black. They are respectively of the following sizes:—Diameter, $2\frac{1}{2}$ in., and $2\frac{3}{4}$ in.; weight, $8\frac{1}{2}$ ozs., and $7\frac{1}{4}$ ozs. They were obtained from the natives near Warrina on the Overland Telegraph line, and were used in playing a game something like bowls, only that the bowler of one ball attempted to strike the other ball, no matter how far distant. If he accomplished this he had the right to bowl again from a stated point or mark, when his opponent followed. Should there be a miss the first again returned to point; should he likewise miss the other then bowled from point. I did not ascertain the name of this game. These stone balls are also used in a spinning game, the winner being he who can make his ball spin the longest, as boys do their tops.

There was also a game of football indulged in by the natives of Victoria. The ball was part of the intestine of an "old man" kangaroo, blown out, and was thrown or kicked by the instep of the foot; whoever caught the ball oftenest won the game.* They also played at hide and seek, when one hid himself and gave a signal by whistling. The fun, of course, was to find out, from the direction of the sound, where the hidden person was.* A game called weit-weit consisted in throwing a sort of javelin at a disc of bark. This game was never played by the females, but was confined specially to the young men and boys. The form of this implement is seen in Plate 82, Fig. 1. Two that

* The Aborigines of Victoria.

are in my possession measure, the first 2ft. 10 $\frac{1}{2}$ in., the second 2ft. 9in. in length; the head at the thickest part is 1 $\frac{1}{4}$ in. in thickness. The weight of the first is 6ozs., that of the second is 4 $\frac{3}{4}$ ozs. When in use the weit-weit is held by the small end of the shaft and thus held it becomes pliant and is thrown at the disc. The wood is of myall, aromatic, and very tough, but it is often broken when the thrower misses his aim.

Great excitement existed amongst the players in this game, which was begun in this manner—each player had one or more of these toys in his hands, standing at a mark on the ground some 30yds. or 40yds. from the disc. They threw in turn, carefully noting where each instrument fell. The thrower standing on the mark would measure the distance with his eye, and turning round would walk some few yards to the rear, and suddenly turning to the front would run back to the mark, discharging his weit-weit with great force at the disc. Its flight under this vigorous impulse is so rapid that the eye cannot follow it. Sometimes it is played without a disc, when the contest consists in throwing it the greatest distance. Its flight through the air causes a loud hissing sound, and there is much danger in standing too near its line of flight, as, should the missile hit the softer parts of the body, it would penetrate the flesh and inflict a dangerous wound.

Athletic games such as wrestling are very frequent. The contestants place their hands on each others' shoulders, moving hither and thither, pushing and pulling and struggling hard for the victory, until at last one of them falls, the successful one returning to his place, but often so exhausted by the struggle as to be unable to speak for some time.

The young boys take much pleasure in using an instrument called the Perboregan. A stick, about 18in. long, neatly pared, had tied to one end a cord made of the sinews of the tail of a kangaroo. To this a small piece of flat wood or bark about 5in. in length was attached. The stick being held in the right hand and the smaller piece whirled rapidly over the head of the player produced a loud noise, when the player would give the instrument a sudden turn, making a report almost like the crack of a stockwhip.* (Plate 82, Fig. 2.)

The young women and girls have amusements of their own, but these run mostly in the form of dancing. They have a game very like that of cat's cradle indulged in by European children, and also a game of ball similar to that of the boys. I have witnessed a rivalry between young girls, in which they contended for mastery in making the fleshy part of the thigh quiver and shake for ten

* The Aborigines of Victoria.



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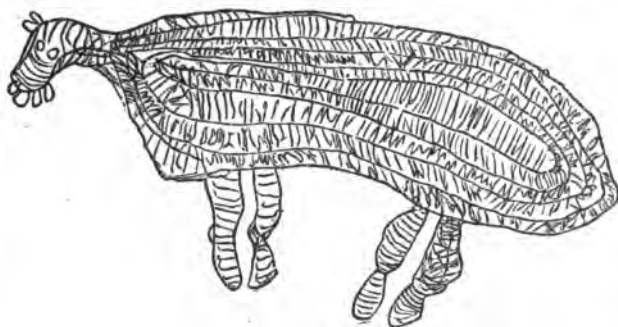
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and twelve minutes at a time; she who could continue this agitation of the flesh the longest would be the winner.

The young men would often contend in the game of digging out a wombat. A young boy would be sent into a hole, and the amusement consisted in the quickest operator.*

They had also sham fights with clubs and shields, and the boys would be set to throw the spear and boomerang at a mark. The object in all these games was to instruct the young in the arts cultivated by the fighting men of the tribe and to gain expertness in the use of the weapons, so as to obtain food with certainty and wield them with advantage in the tribal wars.

THE BUNYIP, ETC.

It is not within the scope of this work to enter into any discussion on the merits or demerits of the numerous legends which abound amongst the aborigines, but only to give a short account of a mythical animal said by them, and, indeed, by some of the earlier white settlers, to inhabit the rivers and lakes of this vast island.

Their traditions of a creature dreadful in aspect and voracious in its appetite for human beings are well known; and none better than that of the *Bunyip*. Wherever it is said to have been seen the description does not tally with that of any known animal on the face of the earth. Its groanings and bellowings were described as most alarming, and its habits to be those of an amphibious animal whose body was covered with feathers or fur. The size varied, according to the mind of the terrified narrator, from that of a large Newfoundland dog to that of a large bull.

"The Western Port (Victoria) blacks call the *Bunyip* *Toor-roo-dun*, and a picture of the animal made by *Kurruk*, a native, many years ago, under the direction of a learned doctor, is that of a creature resembling an emu."* Its covering was said to be either scales or feathers, but little is known of the animal, if there be such, either by the blacks or those of the white settlers who declare to have seen it. Indeed, the abject dread with which all beheld it was so great, that not one has yet been found to give a reasonable account of it or to take note of its characteristics. (Plate 82, Fig. 3.)

"This sketch of the River Murray *Bunyip* was drawn by a native in 1848, in the presence of Messrs. J. P. Main and John Clark, and was given to the late Mr. A. F. A. Greeves by the artist."* (Plate 83, Fig. 1.)

* The Aborigines of Victoria.

My friend Mr. R. E. Johns sent me a sketch made in 1876 by Mr. Scott, manager of Challican station, near Ararat, Victoria, of a figure cut by the aborigines in the turf on the bank of a creek, about half a mile away. In July, 1856, Mr. W. H. Wright, then Commissioner of Crown Lands for the district, heard from the natives (of which he informed Mr Johns) that the figure of a similar animal had been traced by their people long before around the carcass of a dead Bunyip, and that they visited the spot occasionally to re-mark the figure, which was in length about 30ft., and was marked in a similar way to the "Scouring of the White Horse" on the Wiltshire Downs and elsewhere.

In the *Wagga Wagga Advertiser* of 1872 an account is contained of an animal being seen in the Midgeon Lagoon. The hair all over its body was shining jet black, and, as the observer relates, about 5in. long, the ears especially being well developed. He had a splendid view of it, for it stopped (after swimming some distance) within about 30yds., and remained about half an hour gazing at him without showing any alarm, and then quietly turned round and swam away.

The *Wagga Wagga Express* of 1873 states the Bunyip was seen again in the waters of Lake Cowal, in March last, by a party of surveyors who were out in a boat, when the animal was about 150yds. off. It was described as resembling an old man blackfellow with long dark-colored hair. When in motion it rose out of the water so that they could see its shoulders, and again diving as in pursuit of fish, rising again at intervals of about 6yds. or 8yds. Again, a blackfellow and a white man were out in a canoe in the same lake about a fortnight afterwards, when they also saw it, and gave a similar description of the head and hair as that given by the surveyors. This lake is about 200 miles west of Botany Bay.

Major Couchman, chief mining surveyor, is also reported to have seen an animal resembling a water dog swimming in the reservoir at Malmesbury. It was large, and of a very dark color. He watched the animal for some time, when it dived and disappeared. Its head resembled that of a seal.*

The natives of the Narrinyeri tribe, on the Coorong, have a lively dread of an animal, imaginary or otherwise, in Lake Alexandrina, which they name the *Moolgewanke* (the Encounter Bay tribe called it the *Mooldabbie*), and they likened it to an enormous starfish. In Western Australia, Sir George Grey relates—"The Wan-gul is an imaginary aquatic monster residing in fresh water." The natives of Port Essington speak of a monster

* The Aborigines of Victoria.

inhabiting the waters, which is regarded by them much as the *Bunyip* is in the south, and the tribes of the Melbourne district say that the *Myndie* (*Bunyip*) was a great snake, very long and thick in the body, which destroyed the blacks, both young and old. A native sorcerer, celebrated as a man possessing great power, a very old black, was a prisoner in the Melbourne Gaol many years ago. His arrest caused great consternation amongst the tribes far and near, who all fled into the interior, believing that the prisoner would move Pund-jet to let *Myndie* loose. They did not return until the captive was released from prison. Plate 83, Fig. 2 shows the native idea of this animal. It was drawn by an aboriginal. It was believed by the natives that this animal had the power to send the plague of smallpox, the scars of that disease being known as the scales of the *Myndie*.

Flanagan, in his "History of New South Wales, 1823," records a sensational statement made by two men, "who declared on oath that they had seen, about two miles from Liverpool in that colony, a monster 45ft. long, and that they saw it rear its snake-like head 5ft. above the ground." So great a curiosity was not likely to be disregarded, and a large number of people started for the spot, but the monster had gone, and it was never again heard of alive or dead.

I believe that this legend of the *Bunyip* is but a relic, varied by circumstances, at a time when the *Diprotodon* roamed in the marshes of Central Australia, and when alligators or crocodiles inhabited the waters of all portions of the continent. Fossil remains of former inhabitants of this country and also of the saurians have been found in South Australia, and alligators still exist in the rivers of Queensland and the Northern Territory. The tendencies of all the tribes to romance in respect to the *Bunyip* and other kindred subjects recalls the stories of our own ancestors respecting kelpies, vampires, jinns, and the like.

The *Bunyip* occupies a large place in the folk-lore of the aborigines. In Western Australia it is called *Bunnyar*, in Queensland *Munni Munni*, in Victoria *Bunyeep*, and in New South Wales and South Australia the *Bunyip*.

KUPERREE.

A native tribe on Eyre's Peninsula has a legend in reference to the extinction of a gigantic species of kangaroo, which, "in former times, inhabited Port Lincoln. His name was *Kuperree*. He was of stupendous size, and devoured all those who attempted to spear him, his very appearance inspiring the

natives with overwhelming terror, so that they lost all presence of mind, even flinging away their *midlahs*. At last, however, a match was found for the monster kangaroo in two renowned hunters, Pilla and Inda, who, falling upon its track near Port Lincoln, on the range stretching to the north, followed and overtook it on Mount Nilarro. (Plate 84.)

"Finding it asleep, they at once attacked it, but before they could quite kill it their spears became blunt. They then quarrelled with each other, and Pilla stabbed his antagonist with one of the blunt spears in many places, while he himself received a severe blow over his nose. Becoming reconciled, the friends again attacked and killed *Kuperree*, and, on opening it, found, to their utter astonishment, the dead bodies of comrades previously devoured by the monster. Being no less skilled in the medical art than in hunting, they succeeded in reviving and healing these unfortunate men, when they all betook themselves to roasting and devouring *Kuperree* in return. The feast over, and their bodies comfortably greased, they returned to their mourning families, who received them with every demonstration of joy at the happy termination of their adventures. The two heroes were afterwards metamorphosed into, and gave origin to, two species of animals—the *Opossum* and the *Native Cat*—retaining as such, not only their names, but also the scars of the wounds that they inflicted on each other, in the shape of a furrow down the former's nose and a number of white spots sprinkled over the skin of the latter."*

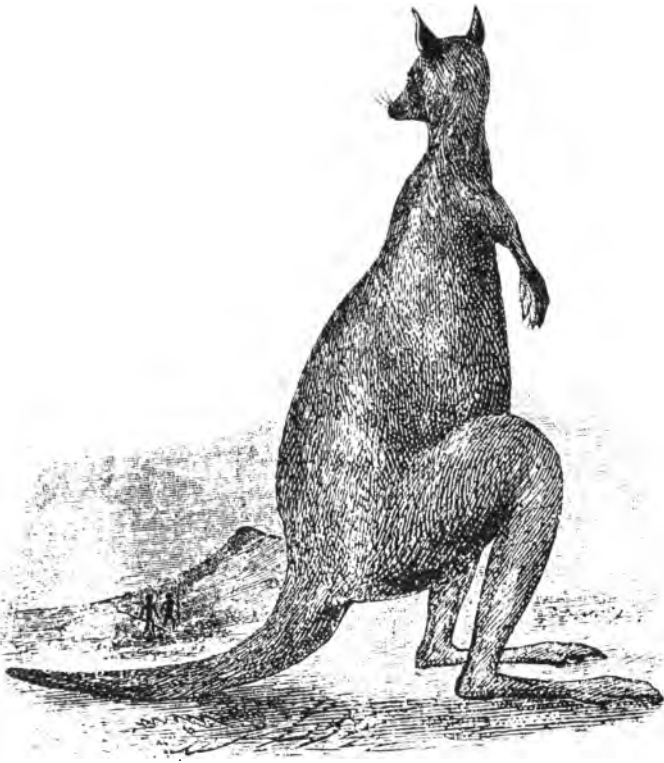
It is just possible that this legend has a basis in fact, which in the course of time moulded itself into the present form, as it is now well known that amongst the Australian extinct vertebrata there was a very large kangaroo (*Diprotodon*). Portions of several skeletons of this animal, and also the lower jaw of a carnivorous marsupial, have been unearthed in various parts of South Australia, and have been placed in the Adelaide Museum.

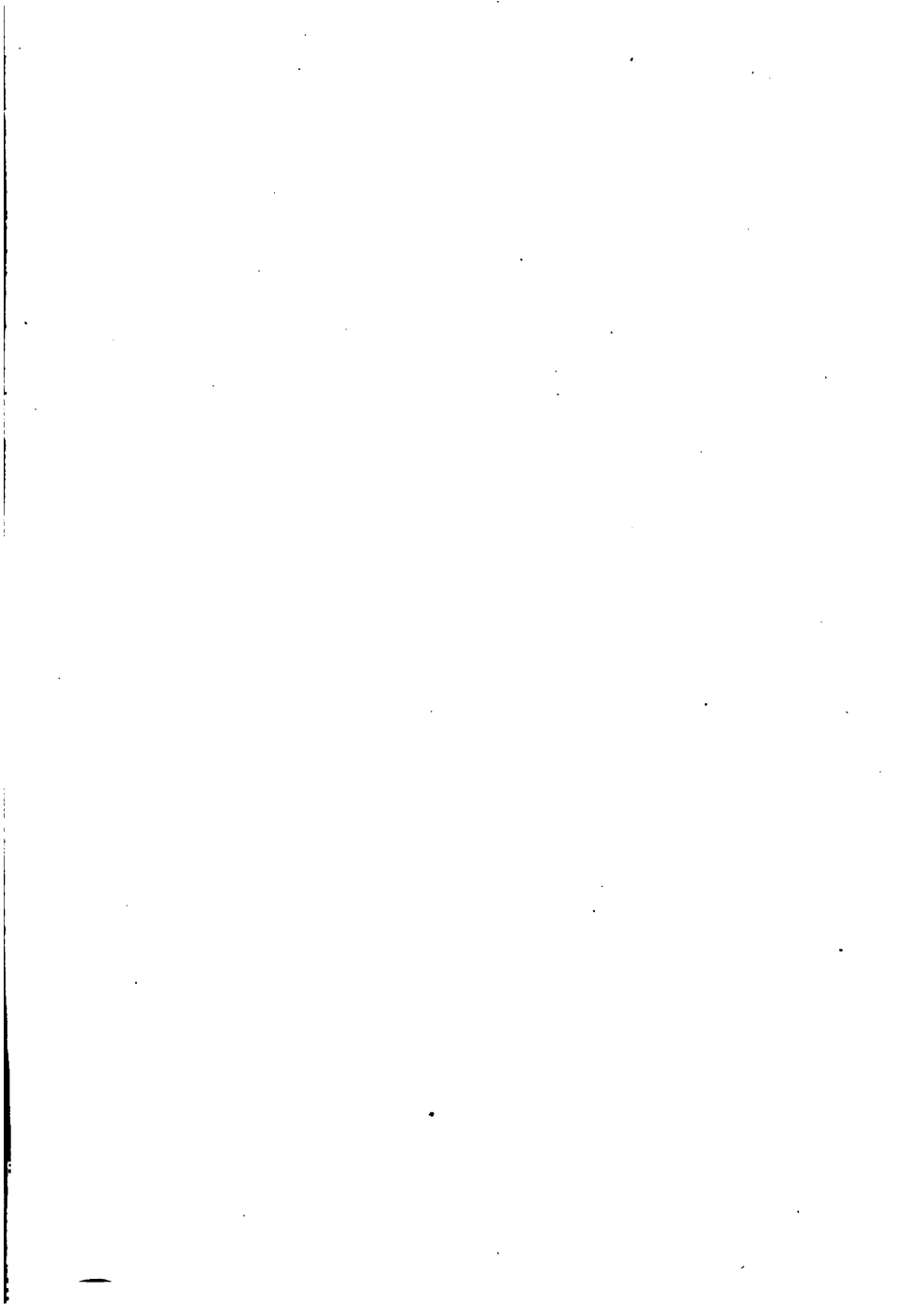
The natives near Palmerston also have ideas of mythical beings of evil types. One, a prisoner in the gaol, adorned the walls of his cell with representations of animals, birds, branches of trees, and the evil spirits feared by his tribe in several curious sketches.

There are also mythical stories relating to a monstrous fish in Lake Alexandrina, which, caught by Nepelle, was torn into pieces, and thrown into the water, when each fragment became a separate fish. And there are separate traditions as to the creation of man, the creation of the sexes, the sun and moon, the evil spirit, how fire was obtained, the giants, origin of the

* Extract from Fourth Annual Report of the Adelaide Philosophical Society.

Plate 84.





NON



Clear quartz.



Colored rock crystal.



Clear rock crystal.